California Regional Water Quality Control Board

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Linda S. Adams
Secretary of Environmental Protection

Arnold Schwarzenegger
Governor

ORDER NO. R2-2009-0033
NPDES PERMIT NO. CAG382001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR Discharges from Surface Water Treatment Facilities for Potable Supply

Table 1. Administrative Information

This Order was adopted by the Regional Water Board on:	**April 8, 2009**
This Order shall become effective on:	**March 1, 2010**
This Order shall expire on:	**February 28, 2015**

The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified the discharges under this General National Pollutant Discharge Elimination System (NPDES) permit as minor discharges based on the discharge's impacts to receiving water bodies.
To obtain coverage under this General Permit, Dischargers must submit a Notice of Intent (NOI) Form as described in Attachments B and C and a filing fee equivalent to the first year's annual fee. If the NOI is complete, authorization to initiate discharge will be issued by the Regional Water Board Executive Officer.
Authorized Dischargers who need to continue discharging after the expiration date of this Order shall file a completed NOI form no later than 180 days in advance of this Order's expiration date. Such Dischargers for which coverage is extended will become subject to the new Order upon authorization by the Executive Officer.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 8, 2009.

Digitally signed by Bruce Wolfe
Date: 2009.04.10 15:13:34 -07'00'

Bruce H. Wolfe, Executive Officer

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Attachment A – Definitions A-1
Attachment B – Notice of intent (NOI) Form B-1
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Attachment D – Federal Standard Provisions D-1
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Attachment F – Fact Sheet F-1

Attachment G - The following documents are part of this Permit, but are not physically attached to this volume. They are available on the internet site at www.waterboards.ca.gov/sanfranciscobay

- Self-Monitoring Program, Part A, adopted August 1993
- Standard Provisions and Reporting Requirements, August 1993
- August 6, 2001 Staff Letter: Requirement for Priority Pollutant Monitoring in Receiving Water and Wastewater Discharges
- Regional Water Board Resolution 74-10

Attachment H – Notice of Non-Applicability H-1

I. FACILITY INFORMATION

A. Facilities this General Permit Covers

This National Pollutant Discharge Elimination System (NPDES) General Permit regulates discharges from surface water treatment facilities. This General Permit covers the following discharges:

- Filter backwash water discharge and storage/settling basin discharge;
- Discharges from treatment unit overflow and broken waterlines within the treatment facility;
- Leakage water;
- Treatment unit dewatering/drainage water;
- Treatment system flushing water during hydrotesting with facility start-up after facility shut down;
- Facility on-site water storage facility drainage;
- Excess raw water release if the Discharger alters the raw water at the treatment plant or upstream of the treatment plant in any way, such as by addition of chlorine or other chemicals.

These discharges are described in detail under Findings in Section II below. This is not a complete list. This Order requires each Discharger to provide a complete list of discharges from its facility in a Notice of Intent (NOI) **(Attachment B)**.

These discharges are referred to as "wastewater" in this permit. The term "wastewater" does not mean domestic sewage for purposes of this permit. This permit does not permit any discharges of domestic sewage.

B. Facilities this General Permit Does Not Cover

This General Permit does **not** cover:

- Discharges from membrane filtration processes. However, this General Permit can cover other discharges from membrane filtration facilities that are similar to those from a surface water treatment facility (i.e., from processes similar to those in surface water treatment plants).
- Discharges to a sanitary sewer system.
- Domestic sewage generated at the facility.
- Discharges from water conveyance systems outside the treatment facility.
- Discharges from raw/source water reservoir.
- Raw water that is not altered by the Discharger.
- Any discharge that is already covered under an individual NPDES permit or Waste Discharge Requirements (WDRs).

C. Facilities that Qualify for Categorical Exceptions per Resolution R2-2008-0101

This General Permit covers two categories of discharges. **Group A** discharges do not qualify as "short-term or seasonal" as defined in Resolution No. R2-2008-0101. **Group B** discharges are "short-term or seasonal." They last no more than 2,200 hours per year and qualify for a categorical exception to the *Policy for Implementation of Toxics Standards for Inland Surface Waters,*

Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). As a result, these two groups must comply with somewhat different effluent limitations and provisions as this Order sets forth.

D. Relationship of General Permit and Individual Permit

Although a discharge may be eligible for coverage under this General Permit, the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) may determine that the discharge would be better regulated under an individual NPDES permit, under another general NPDES permit, or under WDRs for discharges to land. If an individual or General Permit is issued or if WDRs are issued for a discharge, then the applicability of this General Permit to that discharge is immediately terminated on the effective date of the individual permit or WDRs.

E. Relationship of This General Permit to Municipal Storm Water NPDES Permits

Several cities and counties, including those in Alameda County, Santa Clara County, San Mateo County, Contra Costa County, and the Fairfield-Suisun Sewer District, currently have NPDES permits for municipal storm water discharge issued by the Regional Water Board. These permits prohibit discharges other than storm water runoff with certain exceptions, including certain discharges of potable water. To regulate similar discharges consistently, discharges covered under this General Permit shall no longer be covered by a municipal storm water permit. Discharges that are not covered by this General Permit may still be covered under applicable municipal storm water permits.

II. FINDINGS

A. General Description of Facilities

1. **Surface Water Treatment Facilities.** Surface water treatment facilities defined in this General Permit normally include one or more of the following water treatment processes: coagulation/flocculation, sedimentation, filtration, and disinfection.

   a. Coagulation/flocculation: This process causes particles in the raw water to aggregate. Chemical coagulants are added to the raw water to stabilize the electrical charges on suspended particles, followed by gentle stirring to cause the suspended particles to aggregate into larger "floc." Chemical coagulants generally include aluminum sulfate, ferrous sulfate, ferric chloride, lime, and alum-polymer or iron-polymer blends.

   b. Sedimentation: This process allows suspended particles to settle out.

   c. Filtration: Suspended particles are removed from process water as it flows through filter media. Commonly used filter media include crushed anthracite coal, garnet, sand, granular activated carbon (GAC), green sand, or combinations of two or more filter media.

   d. Disinfection: Disinfection reduces the number of pathogenic microorganisms in water. Chlorine gas, chlorine dioxide, ozone, and ultraviolet light are commonly used as disinfectants. Many treatment facilities add both ammonia and chlorine, either separately or simultaneously, to form chloramines. Chloramines are highly stable and can provide

residual disinfecting power throughout the distribution system. Chloramination also produces fewer byproducts, such as chlorophenolic substances (which may cause objectionable taste and odor) and trihalomethanes (which are carcinogens), than standard chlorination.

e. Pre-treatment: Some treatment facilities treat raw water before the coagulation/flocculation process. Pre-treatment processes include chemical addition or mechanical removal of large particles in the raw water before coagulation/flocculation.

f. Post-treatment: Most treatment facilities provide further treatment after disinfection. Post treatment generally includes fluoridation for dental health, pH adjustment for corrosion control, and chloramination to provide disinfection in the distribution system.

4. **Existing Facilities and New Facilities**. An Existing Facility is a facility that is operational on or before the effective date of this General Permit. Some Existing Facilities are currently discharging under individual NPDES permits; other Existing Facilities do not have an NPDES permit. This Order requires all Existing Facilities (or Existing Dischargers) to submit an NOI and a site-specific Best Management Practices (BMPs) plan to obtain coverage under this General Permit.

   A New Facility is one that is still under construction, or that is constructed but has not commenced discharge to a State water, by the effective date of this General Permit. A Discharger from a New Facility (New Discharger) must submit an NOI at least 180 days prior to commencement of discharge. A New Discharger may submit a site-specific BMPs plan with its NOI, but has the option of submitting its site-specific BMPs plan 30 days prior to starting operation. A New Discharger can use this option to better identify the areas of its operations that will need BMPs and to prepare a BMPs plan that is appropriate for those operations.

B. General Description of the Discharges

1. **Filter backwash water discharge and storage/settling basin discharge.** Filters require periodic backwashing to remove accumulated solids. The backwash frequency depends on the quality of the incoming water and number of hours the filter has been in service. The volume of backwash water generated during backwashing varies from a few hundred thousand gallons to over a million gallons depending on the number of filters backwashed, the frequency of backwashing, the size of the filter, influent water quality, etc.

   Many facilities recycle backwash water by pumping it into storage or settling basins, then into the plant influent to be treated with raw water. Most facilities discharge backwash water intermittently; a few facilities do not recycle their backwash water and discharge it continuously.

   Other reasons to discharge backwash or storage/settling basin water are operational errors or severe storm events that cause storage or settling basins to overflow. Some facilities divert all their wastewaters, such as backwash water, treatment unit rinse water, treatment unit overflows, and storm water runoff to storage or settling basins. Discharge from storage or settling basins consists of the various wastewaters accumulated in the basins.

2. **Discharges from treatment unit overflow and broken waterlines within the treatment facility.** These are usually non-routine, emergency discharges due to operational or instrument errors that cause one or several treatment units to overflow to a State water either directly or through a storm drain.

3. **Leakage water.** Some filters and other water treatment units include sub-drains to collect leaks. Collected leakage is normally diverted to backwash water settling basins and discharged with backwash water. Alternatively, a sub-drain may discharge leakage water directly to a storm drain, and through the storm drain to a State water.

4. **Treatment unit dewatering/drainage water.** Occasionally, treatment units must be taken out of service for maintenance or for a seasonal facility shutdown. In this case, treatment units must be drained or dewatered. Drainage water may be diverted to a storage or settling basin before discharge, or may be discharged directly to a State water.

5. **Treatment system flushing water during start-up after facility shut-down.** Some treatment facilities are operated seasonally. When a seasonal facility is re-started, the treatment units and piping systems must be flushed. Water from system flushing may be diverted to a storage or settling basin before discharge, or may be discharged directly to a State water.

6. **On-site water storage facility drainage.** Some facilities store clean water on-site, either for filter backwashing, later distribution to customers, or both. Occasionally, these water storage facilities require maintenance and need to be drained. The drainage water is sometimes discharged to a State water.

7. **Excess raw water released from the treatment facility.** Some facilities receive raw water transported by aqueducts from remote locations. Water demand varies by the hour, and it is infeasible to frequently adjust aqueduct flows to match water demand. Therefore, excess aqueduct flows may need to be released to State waters. Water treatment facilities may also need to dispose raw water due to operational situations. This General Permit does not regulate discharge of raw water that has not been altered. This General Permit does regulate discharge of raw water that has been altered, such as by chemical addition for control of corrosion or algae.

C. Legal Authorities. This Order is issued pursuant to CWA Section 402 and implements regulations adopted by the USEPA and CWC Chapter 5.5, Division 7. It shall serve as an NPDES permit for point source discharges from the facility to surface waters. This Order also serves as WDRs pursuant to CWC Article 4, Chapter 4 for discharges that are not subject to regulation under CWA Section 402.

States may request authority from USEPA to issue general NPDES permits pursuant to Title 40, Code of Federal Regulations (CFR), Part 122.28. On June 8, 1989, the State Water Resources Control Board (the State Water Board) submitted an application to the U.S. Environmental Protection Agency (USEPA) requesting revisions to its NPDES Program in accordance with 40 CFR 122.28, 123.62, and 403.10. The application included a request to add General Permit authority to its approved NPDES Program. On September 22, 1989, the USEPA, Region 9, approved the State Water Board's request and granted authorization for the State to issue general NPDES permits.

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the NOI submitted by dischargers, through monitoring and reporting programs, and through special studies. **Attachments A** through **H**, which contain background information and rationale for the requirements of the Order, are hereby incorporated into this Order and, thus, constitute part of the findings for this Order.

E. Notice of Intent. A Discharger who wishes to be covered under this General Permit must submit an NOI (see **Attachments B and C**). Specific facility information for each discharge is to be included on the NOI Form submitted for that discharge. **Group B** dischargers are to provide information explaining why they qualify for categorical SIP exceptions with the Notice of Intent (i.e., they will indicate that their discharges are "short-term or seasonal").

Any Discharger proposing similar discharges at multiple sites may be covered under one discharge authorization letter subject to the approval of the Executive Officer on a case-by-case basis. Each outfall will be subject to individual fees.

Attachment B to this Order is the NOI form; **Attachment C** contains the instructions for filling out the NOI form. **Attachment H** is the Notice of Non-Applicability form. This form is to be submitted for surface water treatment facilities to which this General Permit is not applicable, to exempt such facilities from the General Permit.

F. Notice of General Permit Coverage—Discharge Authorization. Regional Water Board staff will review the NOI and notify the Discharger or its duly authorized representative if the NOI is complete or incomplete, and whether the proposed activity or discharge can be covered under this General Permit. After receipt of a complete NOI, the Executive Officer will issue a Notice of General Permit Coverage (NGPC). The NGPC will designate each discharge as either Group A or Group B. Coverage under this General Permit starts from the date of the NGPC.

G. California Environmental Quality Act (CEQA). This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with CWC Section 13389. The action of granting categorical SIP exceptions for Group B dischargers complies with CEQA because it is consistent with Resolution No. R2-2008-0101, for which an initial study/mitigated negative declaration was prepared.

H. Technology-Based Effluent Limitations. NPDES regulations at 40 CFR 122.44(a) require permits to include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations, which are based on:

- San Francisco Bay Region Basin Plan (see II.J below), Table 4-2, effluent limits for all treatment facilities,

- Best professional judgment (BPJ) pursuant to CWA Section 402(a)(1)(B) and NPDES regulations at 40 CFR 125.3.

A detailed discussion of the technology-based effluent limitations is included in the Fact Sheet (**Attachment F**).

I. **Water Quality-Based Effluent Limitations.** 40 CFR Section 122.44(d) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under CWA Section 304(a), supplemented where necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in Section 122.44(d)(1)(vi). This Order includes WQBELs for toxic pollutants.

J. **Water Quality Control Plan.** The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Board, Office of Administrative Law and the USEPA, where required.

The Basin Plan in Chapter 2 states that the beneficial uses of any specifically identified water body generally apply to its tributaries (Tributary Rule). The potential and existing beneficial uses supported by the water bodies in this region include municipal and domestic supply (MUN), agricultural supply (AGR), industrial process supply (PRO), groundwater recharge (GWR), water contact recreation (REC1), non-contact water recreation (REC2), wildlife habitat (WILD), cold freshwater habitat (COLD), warm freshwater habitat (WARM), fish migration (MIGR), fish spawning (SPWN), estuarine habitat (EST), industrial service supply (IND), navigation (NAV), marine habitat (MAR), shellfish harvesting (SHELL), ocean, commercial and sport fishing (COMM), and preservation of rare and endangered species (RARE). In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Requirements of this Order implement the Basin Plan.

K. **Basin Plan Prohibitions For Which Exceptions Are Necessary.** The Basin Plan contains a prohibition against discharge of any wastewater that has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 (Prohibition 1 in Table 4-1 of the Basin Plan). The Regional Water Board finds that the discharges permitted under this Order are not subject to this prohibition because they do not contain particular characteristics of concerns to beneficial uses of the receiving waters provided the Dischargers follow BMPs and comply with the requirements of this General Permit.

L. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that applied in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

M. State Implementation Policy (SIP). On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The State Water Board subsequently amended the SIP on February 24, 2005, and the amendments became effective on July 31, 2005. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so. Requirements of this Order implement the SIP.

The SIP provides for a categorical exception to priority pollutant objectives for "short term or seasonal" discharges of drinking water provided certain conditions are met. The Regional Water Board approved categorical exceptions through Resolution No. R2-2008-0101, which allows such for exceptions for drinking water treatment facility discharges provided that specified conditions are met. Group B dischargers meet these conditions and are except from effluent limitations derived from certain priority pollutant objectives. However, they must meet other conditions to receive the exceptions.

N. Compliance Schedules and Interim Requirements. This Order does not include compliance schedules or interim effluent limitations.

O. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR. § 131.21; 65 Fed. Reg. 24641; (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

P. Antidegradation Policy. Section 131.12 of 40 CFR requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet (**Attachment F**), the permitted discharge is consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16.

Q. Anti-Backsliding Requirements. CWA Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. As discussed in detail in the Fact Sheet (**Attachment F**), the prohibitions, limitations, and conditions of this Order are consistent with applicable federal and State anti-backsliding requirements.

R. Monitoring and Reporting. 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code Sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in **Attachment E**. The MRP may be amended by the Executive Officer pursuant to 40 CFR 122.62, 122.63, and 124.5.

S. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in **Attachment D**. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger (**Attachment G**). A rationale for the special provisions contained in this Order is provided in the Fact Sheet (**Attachment F**).

T. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (**Attachment F**).

U. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (**Attachment F**) of this Order.

V. Storm Water Not Commingled with Wastewater. Clean Water Act § 402(p) and the regulations promulgated thereunder require industrial storm water dischargers to obtain an NPDES permit for discharging storm water from the facility to state water and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial storm water discharges. The State Water Board developed a statewide NPDES General Permit for storm water discharges associated with industrial activities (NPDES General Permit CAS000001). Storm water discharges that are not commingled with other wastewaters from surface water treatment facilities should be regulated under the State Water Board General Permit. Storm water discharges that commingle with process wastewaters from surface water treatment facilities are regulated under this General Permit.

W. Best Management Practices Plan. This Order requires a Discharger to submit a BMPs plan if it has not already done so under the requirement of Order No. R2-2003-0062, to obtain coverage under this General Permit. This Order also requires all Dischargers to update the BMPs Plan annually, and implement a BMPs plan for their industrial activity. The purpose of the BMPs plan is to control and abate the discharge of pollutants from the facility to surface waters and to achieve compliance with BAT or BCT requirements and with applicable water quality standards. Specific pollutants to be addressed by BMPs are as follows:

a. Total Polychlorinated Biphenyls (PCBs). Some water storage facilities were constructed using materials containing PCBs. PCBs are highly insoluble in water and tend to accumulate in sediments. This Order prohibits discharges of bottom sediments from water storage facilities. This Order also requires Dischargers to develop and implement BMPs plans for water storage

facilities dewatering discharge to eliminate sediment discharge to the maximum extent possible. A BMPs plan requires the Discharger to conduct a PCBs analysis if it suspects that PCBs were used during the storage facility construction. For this permit purpose, "water storage facility" is a general term that includes but is not limited to tanks, ponds, reservoirs or any other water storage unit at the surface water treatment facilities.

b. Copper and zinc. Some dischargers add copper compounds to their raw water reservoirs for algae control. Some existing discharge data also show copper concentrations higher than CTR criteria. Zinc is used as pipe coating or primer and in galvanized steel pipe for corrosion control. Zinc may be released from zinc-coated or galvanized pipes to water. This Order requires monitoring of copper and zinc. The monitoring result will be used in the future to determine if copper or zinc have reasonable potential to cause or contribute to an exceedance of water quality criteria. This Order also requires Dischargers to reduce or eliminate the use of copper compounds in their site-specific BMPs to the maximum extent practicable.

IT IS HEREBY ORDERED, that Order No. R2-2003-0062 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, the Dischargers shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

1. Discharge of effluent/treated wastewater at a location or in a manner different from that described in the NOI is prohibited.

2. The bypass or overflow of untreated or partially treated wastewater to waters of the United States is prohibited.

3. Discharge of bottom sediments from water storage facilities to State waters in such manner as to cause nuisance or adversely affect beneficial uses is prohibited.

4. On-site storage of oil, fuel and any other chemical storage causing contamination of storm water runoff and/or water and wastewater discharge is prohibited.

5. The discharge shall not cause a condition of pollution, contamination, or nuisance as defined in California Water Code section 13050.

6. Group B discharges shall not exceed 2,200 hours per year at any one location.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Group A Effluent Limitations (for Discharges That Are Not "Short-Term or Seasonal")

For Group A dischargers, the effluent from each discharge outfall, as defined in the NOI, shall not exceed the effluent limits in Table 1:

Table 1: Group A Effluent Limitations (for Discharges That Are Not "Short-Term or Seasonal")

Constituents	Units	Daily Maximum	Weekly Average	Monthly Average	Instantaneous Maximum	Instantaneous Minimum
1. Total Suspended Solids (TSS)	mg/L	--	45	30	--	--
2. Settable Matter(4)	mL/L-hr	0.2	--	0.1	--	--
3. pH (1)	standard units	--	--	--	8.5	6.5
4. Total Chlorine Residual (3)	mg/L	--	--	--	0.0	--
5. Bromoform	µg/L	8.6		4.3		
6. Dichlorobromomethane	µg/L	1.1		0.56		
7. Chlorodibromomethane	µg/L	0.80		0.40		
8. Copper (5)	µg/L	9.4		4.7		
9. Zinc	µg/L	90		45		
10. Acute Toxicity (2)						

Unit Abbreviations

µg/L = micrograms per liter
mg/L = milligrams per liter
mL/L/hr = milliliters per liter per hour

Footnotes for Table 1:

(1) Exceedance of the pH limit will not constitute a violation of this Order if the Discharger can demonstrate, through receiving water monitoring, that the discharge does not cause a natural background pH to be depressed below 6.5 nor raised above 8.5, or if outside this range, the receiving water has not been altered from normal ambient pH by more than 0.5 Standard Units.

(2) Compliance with the acute toxicity limit shall be achieved in accordance with Section IV of the attached MRP (**Attachment E**). Representative samples of the effluent shall meet the following limits for acute toxicity.

Continuous discharge:

a. The survival of bioassay test organisms in 96-hour static renewal bioassays of undiluted effluent shall be:
   i. a 3-sample median value of not less than 90 percent survival; and
   ii. a single-sample maximum of not less than 70 percent survival.

b. These acute toxicity limits are further defined as follows:
   i. 3-sample median limit: 3-sample median is defined as follows: if one of the past two or fewer samples shows less than 90 percent survival, then survival of less than 90 percent on the next sample represents a violation of the effluent limitation.
   ii. Single-sample maximum: Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

Intermittent discharge: Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

(3) The Regional Water Board has determined that residual chlorine field test kits and analyzers (EPA-approved Standard Methods 4500-Cl F and G) have a minimum reporting level of up 0.08 mg/L; therefore, the Discharger will be considered out of compliance with the total chlorine residual limit if the effluent concentration is greater than 0.08 mg/L.

(4) The settleable matter limit only applies to on-site storage facility dewatering effluent.

(5) For discharges to fresh water with 150 mg/L hardness as calcium carbonate or greater, the discharge limitations for copper shall be an AMEL of 9.8 ug/L and an MDEL of 20 ug/L.

B. Group B Effluent Limitations (for "Short-Term or Seasonal" Discharges)

For Group B dischargers, the effluent from each discharge outfall, as defined in the NOI, shall not exceed the effluent limits in Table 2:

Table 2: Group B Effluent Limitations (for "Short-Term or Seasonal" Discharges)

Constituents	Units	Daily Maximum	Weekly Average	Monthly Average	Instantaneous Maximum	Instantaneous Minimum
1. Total Suspended Solids (TSS)	mg/L	--	45	30	--	--
2. Settable Matter (4)	mL/L-hr	0.2	--	0.1	--	--
3. pH (1)	units	--	--	--	8.5	6.5
4. Total Chlorine Residual (3)	mg/L	--	--	--	0.0	--
5. Total Trihalomethanes (TTHMs)	mg/L			0.1		
6. Zinc	µg/L	90		45		
7. Acute Toxicity (2)						

Unit Abbreviations

µg/L = micrograms per liter
mg/L = milligrams per liter
mL/L/hr = milliliters per liter per hour

Footnotes for Tables

(1) Exceedance of the pH limit will not constitute a violation of this Order if the Discharger can demonstrate, through receiving water monitoring, that the discharge does not cause a natural background pH to be depressed below 6.5 nor raised above 8.5, or if outside this range, the receiving water has not been altered from normal ambient pH by more than 0.5 Standard Units.

(2) Compliance with the acute toxicity limit shall be achieved in accordance with Section IV of the attached MRP (**Attachment E**). Representative samples of the effluent shall meet the following limits for acute toxicity.

Continuous discharge:

a. The survival of bioassay test organisms in 96-hour static renewal bioassays of undiluted effluent shall be:
   i. a 3-sample median value of not less than 90 percent survival; and
   ii. a single-sample maximum of not less than 70 percent survival.

b. These acute toxicity limits are further defined as follows:
   i. 3-sample median limit: 3-sample median is defined as follows: if one of the past two or fewer samples shows less than 90 percent survival, then survival of less than 90 percent on the next sample represents a violation of the effluent limitation.
   ii. Single-sample maximum: Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

Intermittent discharge: Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

(3) Readings using residual chlorine field test kits and analyzers (EPA-approved Standard Methods 4500-Cl F and G) of up to 0.08 mg/L will be considered in compliance with the total chlorine residual limit.

(4) The settleable matter limit only applies to on-site storage facility dewatering effluent.

V. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place and any time:

   a. Erosion of the stream bank and streambed;

   b. Floating materials including solids, liquids, foams and scum, suspended and/or deposited materials in concentration that cause nuisance, or adversely affect beneficial uses;

   c. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely effect to beneficial uses;

   d. Alteration of temperature or apparent color beyond present natural background levels;

   e. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and

   f. Toxic or other deleterious substances in concentrations or quantities that will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge shall not cause pH variation from normal ambient pH by more than 0.5 pH units.

3. The discharge shall not increase turbidity above background levels by more than the following:

Receiving Water Background	Incremental Increase
<50 units (NTU)	5 units, maximum
50-100 units	10 units, maximum
>100 units	10% of background, maximum

VI. PROVISIONS

A. Federal Standard Provisions

The Discharger shall comply with all Standard Provisions included in **Attachment D** of this Order.

B. Monitoring and Reporting Program Requirements

1. The Discharger shall comply with the MRP and future revisions thereto, in **Attachment E** of this Order and as specified in the NGPC.

2. The Discharger authorized under this permit may be required to comply with additional monitoring requirements. The Executive Officer will specify such additional monitoring requirements, which will include an explanation of the need for the information. Examples of additional monitoring that could be required are listed below:

a. Monitoring required to respond to a complaint received about a facility authorized to discharge under this permit,

b. Dioxins and furans monitoring,

c. Participation in the Regional Monitoring Program (RMP),

d. Additional effluent and ambient priority pollutant monitoring.

C. Special Provisions

1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

a. If present or future investigations demonstrate that the discharge(s) governed by this Order will or have a reasonable potential to cause or contribute to, or will cease to, have adverse impacts on water quality and/or beneficial uses of the receiving waters;

b. If new or revised water quality objectives (WQOs) or total maximum daily loads (TMDLs) come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations or triggers for toxic pollutants in this Order will be modified as necessary to reflect updated WQOs and waste load allocations in TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted WQOs, TMDLs, or as otherwise permitted under federal regulations governing NPDES permit modifications;

c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified;

d. If an administrative or judicial decision on a separate NPDES permit or WDRs address requirements similar to this discharge;

e. Or as otherwise authorized by law.

The Dischargers may request permit modification based on the above. The Dischargers shall include in any such request an antidegradation and anti-backsliding analysis.

2. Notice of Intent

An owner or operator of a surface water treatment facility that seeks coverage under this General Permit shall file a complete NOI. The NOI application for each point of proposed discharge to a surface water body shall contain the information required in the NOI Form, as explained in **Attachments B and C** of this Order and as may be amended by the Executive Officer.

3. Notice of Intent Review

Upon receipt of an NOI application package for a proposed discharge, Regional Water Board staff will review the application to determine if it is complete and if the Discharger is eligible to discharge waste under this General Permit. The application package shall document that the facility and its associated operation, maintenance, and monitoring plans are capable of ensuring that the discharge will meet the provisions, prohibitions, effluent limitations, and receiving water limitations of this Order.

4. Notice of General Permit Coverage – Discharge Authorization

If the Executive Officer determines that the proposed discharge is eligible for this General Permit and its NOI is complete, the Executive Officer will authorize the proposed discharge by issuing a NGPC. The Discharger is authorized to discharge starting on the effective date of the NGPC. The NGPC will specify type(s) of wastewater and the maximum discharge flow rate allowed. Upon the effective date of the Executive Officer's discharge authorization, the Discharger shall comply with all applicable conditions and limitations of this Order and its Attachments. Requirements prescribed by this Order supersede the requirements prescribed in any previous individual permit or WDRs as of the effective date the NGPC is issued to a Discharger.

5. Notice of Non-Applicability

If owners or operators of surface water treatment facilities determine that this General Permit is not applicable to their facility or facilities, the owner or operators of the facilities are required to submit a Notice of Non-Applicability (**Attachment H**) to be exempted from this General Permit. Discharges from exempted facilities will not be covered under this General Permit.

6. Discharge Termination

In accordance with 40 CFR 122.28(b)(2)(iv), the Executive Officer may terminate or revoke coverage under this Order for any of the specified causes for an individual permit coverage set forth in 40 CFR 122.28(b)(3). After notice and opportunity for a hearing, coverage of an individual discharge under this General Permit may be terminated or modified for cause, including but not limited to, the following:

a. Violation of any term or condition of this General Permit;

b. Misrepresentation or failure to disclose all relevant facts in obtaining coverage under this General Permit; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

7. Non-Compliance as a Violation

Any permit noncompliance (violations of requirements in this Order) constitutes a violation of the Clean Water Act and the California Water Code and may be grounds for enforcement

action, permit or authorization termination, revocation and reissuance, modification, issuance of an individual permit, or denial of a renewal application.

8. Individual NPDES Permit May Be Required

The USEPA Regional Administrator may request that the Executive Officer require any discharger authorized to discharge waste by a General Permit to subsequently apply for and obtain an individual NPDES permit. The Executive Officer may require any discharger authorized to discharge waste by a General Permit to subsequently apply for and obtain an individual NPDES permit. An interested person may petition the Executive Officer or the Regional Administrator to take action under this provision. Cases where an individual NPDES permit may be required include the following:

a. The Discharger is not in compliance with the conditions of this Order or as authorized by the Executive Officer,

b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source,

c. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit,

d. A water quality control plan containing requirements applicable to such point sources is approved, or

e. The requirements of 40 CFR 122.28(a), as explained in Finding II.C, are not met.

9. Construction, Operation and Maintenance Specifications

Backwash water settling basins shall be operated so as to optimize solids settling. The Discharger shall submit appropriate sections in its Operation and Maintenance (O&M) Manual regarding the basin's operation and maintenance procedures and/or requirements annually to the Regional Water Board. A letter report describing any updates to a previously submitted O&M Manual shall be acceptable in lieu of the O&M Manual itself.

Group B dischargers shall include in their O&M Manuals relevant residual waste disposal plans.

10. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Best Management Practices Plan

(1) Existing Discharger. An Existing Discharger shall submit a BMPs plan with the NOI. An Existing Discharger that is already implementing BMPs required by its municipality under a municipal storm water NPDES permit for pollution prevention at the treatment facility may, at its option, submit a copy of its existing BMPs plan or equivalent plan to the Regional Water Board in lieu of the BMPs plan required in this Provision.

(2) New Discharger. A New Discharger has the option of submitting its BMPs plan with the NOI or 30 days before the commencement of its operations. This is to allow the New Discharger to develop a BMPs plan that is specific to its operation and to better identify which areas of the facility operation need improved BMPs.

(3) BMPs plan requirements. The BMPs plan shall address all specific means of controlling the discharge of pollutants from the facility. The contents of the BMPs plan is specified in the instructions for the NOI attached to this Order. The Discharger shall implement immediately the BMPs plan upon submittal to the Regional Water Board. The Executive Officer may require additional pollutant control measures. The Discharger shall review and update the effectiveness and adequacy of the implemented BMPs plan annually, or more often as necessary. The Discharger shall submit any updates made to the site-specific BMPs plans to the Regional Water Board annually by July 1 of each year. If the Discharger decides, based on its annual review, that an update of its BMPs plan is not needed, the Discharger shall submit a letter to the Regional Water Board certifying that its BMPs plan has been reviewed and that no update is necessary for that year. Copies of updated site-specific BMPs plan shall be maintained at the treatment facilities.

Group B dischargers shall include contingency plans within their BMP plans and, when necessary, identify alternate water supplies.

(4) Annual Report. The Discharger shall update its BMPs plan annually and submit it to the Regional Water Board by July 1st of each year.

(5) Annual Training Requirement. All field personnel, on-site supervisors, and operators shall receive training in the site-specific BMPs plan at least annually.

b. BMPs Plan for Discharges from On-Site Water Storage Facilities

The Discharger shall submit a BMPs plan at least 30 days before the date it plans to discharge dewatering effluent. The Discharger may submit this BMPs plan with its NOI. The BMPs plan shall address all specific means of controlling the discharge of pollutants with the dewatering effluent. The minimum required contents of this BMPs plan are specified in the instructions for the NOI form attached to this Order.

c. Facility Modification/Maintenance

The Discharger shall submit a schedule at least 30 days prior to any modification or maintenance of the facility that the Discharger determines may result in violation of effluent limitations or alteration of the outfall location(s). The schedule shall contain a description of the maintenance including the modified outfall location(s) and its purpose; the period of maintenance, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent non-compliance.

d. Additional Requirements for Group B Dischargers

The following requirements apply to Group B dischargers, but not Group A dischargers.

Biologist Certification

The Discharger shall provide certification by a qualified biologist that the receiving water beneficial uses have been restored prior to the application of a new permit.

Pollutant Minimization Plans

i. The Discharger shall prepare and implement a pollution minimization plan with the following:

- Best management practices (BMPs) that eliminate or reduce to the extent feasible the use of copper-based herbicides by using less toxic methods for controlling algal blooms and reducing the use of copper-based herbicides to the lowest effective dose;

- BMPs that eliminate planned discharges and minimize unplanned discharges within 48 hours of applying copper-based herbicides to waterbodies;

- Operational BMPs that avoid and minimize the number of discharges by retaining water within the drinking water system to the maximum extent possible;

- Inspection and maintenance BMPs that minimize the number of discharges by preventing leaks and breaks from pipelines, valves, tanks, and other drinking water system infrastructure; and

- Training BMPs that minimize the frequency of accidental spills.

ii. The Discharger shall submit a report documenting the review and evaluation of all its BMPs to determine whether they are adequate, properly implemented, and maintained. The Discharger shall identify and implement additional BMPs where necessary.

iii. The Executive Officer may exempt any Group B discharger from the following pollution minimization requirements if the Discharger can, for each discharge to be exempted, demonstrate that the discharge (a) contains copper concentrations above water quality criteria no more frequently than once every three years on average or (b) flows back into the same water body where the water originated.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP (**Attachment E**). For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the

monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data

When determining compliance with an average monthly or maximum daily effluent limit for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered

to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters include~~d~~, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code Section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with Section 2.4.2 of the SIP or established in accordance with Section 2.4.3 of the SIP. The ML is based on the proper application of

method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ATTACHMENT B – NOTICE OF INTENT (NOI) FORM

NOTICE OF INTENT (NOI) to comply with the terms of the region-wide General National Pollutant Discharge Elimination System (NPDES) Permit authorizing discharge from surface water treatment facilities to surface waters.

General Permit No. CAG 382001
Order No. R2-2009-0033

FOR REGIONAL WATER BOARD USE ONLY

WDID: **CIWQS Place No.:** **Group A [ ] or Group B [ ]**	**Date NOI Received:**	**Date NOI Processed:**
Case Manager's Initials:	**Fee Amount Received*:** **$**	**Check #:**

* The annual fee will be based on the permitted discharge flow rate and the adopted fee schedule, available at http://www.waterboards.ca.gov/fees/docs/adoptedfeeschedule.pdf. The fee schedule is subject to change. If your facility only has emergency discharge, the first annual fee is $1,000.00. Subsequent annual fees will be based on the previous year's discharge rate and the most current fee schedule available at http://www.waterboards.ca.gov/fees/docs/adoptedfeeschedule.pdf.

DISCHARGER TO PROVIDE THE FOLLOWING INFORMATION

I. OWNER/OPERATOR INFORMATION (Provide a separate form for each facility. If additional owners/operators are involved, provide the information in a supplemental letter.)

A. Facility/Agency Name		Owner/Operator Type (Check One) 1.☐ Public Agency 2.☐ Private 3.☐ Other, specify the type:	
Street Address			
City	State	Zip Code	Phone No.
B. Contact Person's Name & Title		1. ☐ Owner 2. ☐ Operator 3. ☐ Owner/Operator	
Contact Person's Email		Contact Person's Phone No.	

☐ Additional owner information attached

II. BILLING ADDRESS

Send to: ☐ **Owner/Operator** *(Enter information at right **only** if it is different from above)* ☐ **Other** *(Enter information at right)*	Name		
	Mailing Address		
	City	State	Zip Code

III. DISCHARGE EFFLUENT INFORMATION

1. Describe the proposed discharge(s). Indicate the number of hours per year that you propose to discharge. State whether a Group A or Group B discharger. List any potential pollutants in the discharge. Attach additional sheets if needed.

2. List types of discharge:

☐ Backwash water/settling basin discharge	☐ Treatment unit overflow or other spill	☐ Treatment unit leakage	☐ Treatment unit dewatering/drainage
☐ Treatment unit flushing water	☐ Storage basin discharge	☐ Raw water release	

☐ Other, please specify:

3. Discharge flow rate:
   Total discharge flow rate/maximum permitted discharge flow rate: _____
   Average daily flow rate (gallons/day): _____
   Maximum daily flow rate (gallons/day): _____

4. Discharge volume:
   _____ gallons per ☐day ☐week ☐month ☐year

4. Frequency of discharge:
   ☐ Continuous ☐ Daily ☐ Intermittent ☐ Emergency

IV. DISCHARGE WATER QUALITY PARAMETERS

Check one:

☐ Existing facility. Sampling plan submitted to the Regional Water Board and data are available.

☐ New facility. Attach a sampling plan (For developing the plan, see the requirements specified in the Regional Water Board August 6, 2001, Letter available at www.waterboards.ca.gov).

In the past five years, has your facility performed any physical or chemical analysis of discharges proposed by this NOI for authorization under General Permit No. CAG382001? ☐ yes ☐ no

If yes, summarize the results for the parameters listed below. Indicate whether the data represents an individual or a combined waste stream and provide data summaries for other individual or a combined waste streams, if available, on additional pages.

Discharge Point*:

	Units	Minimum	Maximum	No. of Samples	Test Method	Method Detection Limit
Total Suspended Solids	mg/L					
Turbidity	NTU					
Settleable Matter	mL/L-hr					
pH	s.u.				N/A	
Total Chlorine Residual	mg/L					
Acute Toxicity	% survival					
Copper	µg/L					
Zinc	µg/L					
Chloroform	µg/L					
Bromoform	µg/L					
Dichlorobromomethane	µg/L					
Chlorodibromomethane	µg/L					

* Attach additional sheets for each discharge point.

V. RECEIVING WATER AND DISCHARGE POINT INFORMATION

Receiving Water(s)*:
1.
2.
3.

Discharge points / coordinates

Receiving Water 1.
Discharge Point 1: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 2: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 3: Latitude:_____Longitude:_____Hardness Range:_____

Receiving Water 2.
Discharge Point 1: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 2: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 3: Latitude:_____Longitude:_____Hardness Range:_____

Receiving Water 3.
Discharge Point 1: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 2: Latitude:_____Longitude:_____Hardness Range:_____
Discharge Point 3: Latitude:_____Longitude:_____Hardness Range:_____

* Attach additional sheets for additional receiving waters and discharge points.

VI. LOCATION MAP

Attach a topographic map or maps of the area. The map(s) should clearly show the following:

1. The legal boundaries of the facility;
2. Locations of all water and wastewater treatment units, such as sand filters, backwash and settling basins, and sludge handling processes, if any;
3. Locations of all chemical storage tanks (indicate if secondary containment is provided for each tank).
4. The location and identification number of each of the facility's existing and/or proposed intake and discharge points; and
5. The receiving State water(s) and receiving storm water drainage system(s), if applicable, identified and labeled.

VII. FLOW CHART

Attach a flow chart showing all components of the treatment train. Indicate the proposed outfall locations described in V.

VIII. SITE-SPECIFIC BEST MANAGEMENT PRACTICES (BMPs) PLAN

Attach a site-specific BMPs plan on separate sheets. The site-specific BMPs plan shall address all specific means of controlling the discharge of pollutants from the facility. The site-specific BMPs plan shall also include a schedule and procedures for plan review, plan implementation, and annual training.

☐ Site-specific BMPs plan is attached with this NOI.
☐ Site-specific BMPs plan will be submitted 30 days before the commencement of the proposed discharge.
☐ A copy of the BMPs plan required by the local municipality is attached.

IX. AUTHORIZATION OF REPRESENTATIVE

1. This statement authorizes the named individual or any individual occupying the named position of the company/organization listed below to act as our representative to process the required NOI Form for coverage under the NPDES General Permit for discharge to State waters from the subject facility. The Owner hereby agrees to comply with and be responsible for all the conditions specified in the General Permit.

   Company/Organization Name: _____

   Street Address: _____

   City, State and Zip Code+4: _____

   Authorized Contact Person & Title: _____

   Phone No.: (___) _____ Fax No.: (___) _____

   E-mail address: _____

2. A separate authorization statement is attached:

   Yes _____ No _____

X. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the criteria for eligibility and the development and implementation of Pollution Prevention Practices, if required, will be complied with.

Signature _____ Date: _____

Printed Name & Title: _____

Facility/Agency Name: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

XI. APPLICATION FEE AND MAILING INSTRUCTIONS

Submit this NOI with attachments and a check made out to the "San Francisco Bay Regional Water Quality Control Board" with the appropriate fee (see NOI instructions Section X for the applicable fee). Send the complete package to the following address:

San Francisco Bay Regional Water Quality Control Board
Attn: NPDES Wastewater Division
1515 Clay Street, Suite 1400
Oakland, CA 94612

ATTACHMENT C – INSTRUCTIONS FOR COMPLETING NOTICE OF INTENT (NOI) FORM

INSTRUCTIONS FOR NOTICE OF INTENT (NOI) to comply with the terms of the region wide General National Pollutant Discharge Elimination System (NPDES) Permit authorizing discharges from surface water treatment plant facilities to surface waters.

I. OWNER/OPERATOR INFORMATION

The owner is the organization or person who owns or leases the facility or land where the surface water treatment plant is located. For a facility that is one of several owned by a corporation, indicate the corporation name and the name by which the facility is known to the employees (i.e., ABC Inc. - DEF Facility). Provide the street address or a description of the facility location (i.e., 1234 15th Drive or northwest corner of 1st Street and X Avenue). Note that each facility must obtain separate coverage under this General Permit.

II. BILLING ADDRESS

Provide this information only if the annual waste discharge fee should be billed to a different entity.

III. DISCHARGE EFFLUENT INFORMATION

List all possible discharges under item 2 of the table. This General Permit will not cover discharges that are not listed here. State whether a Group A or Group B discharger. An additional NPDES permit may be needed for any other discharge of wastewater to any State waters.

The annual waste discharge fee will be determined based on the maximum discharge flow rate under this item (III.3). The maximum discharge flow rate is also the maximum permitted discharge flow rate. For intermittent discharges, the maximum discharge flow rate is the average daily flow over one year (i.e., the total volume in one year divided by 365 days). The permitted flow rate may be changed by filing a revised NOI with the new maximum discharge flow rate. The new maximum daily flow rate will take effect upon issuance of a revised Notice of General Permit Coverage (NGPC).

If your facility has only non-routine (i.e., unplanned or emergency) discharges, the annual fee is $1,000.00 for the first year. Subsequent annual fees will be based on the previous year's maximum flow rate.

IV. DISCHARGE WATER QUALITY PARAMETERS

For existing facilities, all of the parameters must be tested by a State certified laboratory and reported in this table. If discharge data has not already been provided to the Regional Water Board, provide a copy of the laboratory data sheets and Chain of Custody documents, as applicable. For a new or proposed facility, enter estimated values to this table. Where there is more than one outfall, submit a separate sheet for item IV for each outfall. Test results shall be obtained from a sample or samples representative of the discharge.

V. RECEIVING WATER AND DISCHARGE POINT INFORMATION

The discharge point is generally the point of first contact with State waters. Provide the coordinates of each discharge point. A U.S. Geographical Survey (USGS) or any other appropriate map may be used to interpolate the coordinates.

If the discharge enters a separate storm drainage system prior to contact with a State water, provide the name of the State watercourse or water body to which the storm drainage system discharges. Please contact the owner of the storm drainage system about your proposed discharge.

Attach a separate sheet for additional discharge points. Properly label the discharge points with numbers that correspond to the discharge point label(s) on the location map(s) and flow chart(s) submitted.

VI. LOCATION MAP

Provide the location map on 8-1/2 by 11 inches sized paper or paper folded to 8-1/2 by 11 inches. Show at least one mile beyond the property boundaries of the facility on the map.

Indicate the discharge point(s) on the location map and include all of the required information. The discharge point(s) may include where the discharge exits the facility and enters the roadway right-of-way and then flows into a separate storm drainage system and/or where the discharge directly enters the State waters.

VII FLOW CHART

The flow chart shall indicate all water treatment processes from raw water influent to finished water distribution, including discharge of wastewater to the receiving water, and the approximate amounts of flow through each process or discharge. Flow quantities may be estimated if no data are available.

VIII. SITE-SPECIFIC BEST MANAGEMENT PRACTICES (BMPS) PLAN

A. Site-specific BMPs Plan for Discharges from Surface Water Treatment Facilities

Existing Dischargers shall submit a site-specific BMPs plan with this NOI. New dischargers have the option of submitting a BMPs plan with this NOI or 30 days before commencement of the proposed discharge. If the facility has prepared a BMPs plan complying with a municipal storm water permit, the applicant may provide a copy of that plan. The site-specific BMPs plan shall include, at minimum, the following information:

1. **Facility Operation -** Describe the operation of the facility.

   (a) Describe the source and characteristics of the raw water

   (b) Briefly describe the water treatment processes. The description shall include a flow diagram that includes all the treatment units at your facility and a brief description of each

   (c) Provide the water treatment capacity and normal operation rate

   (d) Provide the filter backwash frequency and flow rate

   (e) Describe chemicals added at each treatment process

(f) Describe backwash water treatment method(s) (e.g., settling basin)

2. **Potential Pollutants** - Describe pollutants that may potentially be generated by the facility. These pollutants may include, but are not be limited to:

   (a) Chemicals used in water treatment;

   (b) Pollutants associated with operation and maintenance of equipment, such as oil and grease and hydraulic fluid leakage and spills;

   (c) Any solids or sediments generated by the operation (e.g., in filter backwash water);

   (d) Storm water runoff from exposed oil, fuel or any hazardous material storage locations and containment structures;

   (e) Evaluation of stream bank conditions (i.e., potential for erosion) at locations where large volumes of discharged water may enter the stream.

3. **Pollution Control and Effluent Treatment Methods** – Describe in detail the control and treatment measures for each of the potential pollutants identified under item VII.2 above:

   (a) Prevention measures to be implemented to prevent the pollutants from entering the effluent and receiving water;

   (b) Measures to reduce or eliminate the use of copper compound to the maximum extent practical;

   (c) Effluent treatment methods to be implemented on-site to remove the pollutants in the effluent (indicate the treatment system locations on the location map);

   (d) Maintenance procedures and maintenance schedules to maintain the effluent treatment system; and

   (e) Methods to prevent stream bank erosion resulting from the discharge (e.g., bank stabilization, control of discharge rate).

4. **Chlorine Management**

   (a) Chlorine storage and transportation. The BMPs plan shall indicate the form of chlorine (e.g., chlorine gas, sodium hypochlorite) used at the facility. The BMPs plan shall also include chlorine storage methods, storage tank size and location, secondary containment, and any exposed pipes used to transport chlorine.

   (b) Chlorine spill and leakage prevention. The BMPs plan shall specify how chlorine is handled to prevent spills, and the emergency response and cleanup plan in the event of a spill or leakage. The BMPs plan shall also include the schedule for routine inspection of chlorine storage sites and transport piping to prevent leaks.

   (c) Chlorinated water spill. The Discharge shall install an alarm system to provide warning of chlorinated water overflows or spills. The BMPs plan shall describe procedures for dechlorination of spill or overflow water.

   (d) Water release. The BMPs plan shall include a set of standard procedures for total chlorine residual monitoring and dechlorination of water to be released or discharged to State waters.

(e) Responsibility and training. The BMPs plan shall identify the names and positions of persons responsible for the tasks identified in the BMPs plan. The BMPs plan shall also include the schedule(s) for BMPs training.

B. BMPs Plan for Dewatering Effluent Discharge from Water Storage Facilities at Treatment Plant

A Discharger that plans to dewater its on-site storage facilities and discharge its dewatering effluent shall submit a BMPs plan at least 30 days before the planned discharge. The Discharger may submit its BMPs plan, if available, with its NOI. The BMPs plan shall contain, at minimum, the following information:

1. **Effluent Water Monitoring.** The Discharger shall monitor the effluent in accordance with the sampling and monitoring schedule specified under Table E-4 of the Self-Monitoring Program (Attachment E).

2. **Treatment Method.** The BMPs plan shall describe the specific treatment method(s) to be used to treat dewatering effluent prior to discharge, in case the initial analytical results show pollutant level(s) above the permit limitations in Section IV.A of the General Permit.

3. **Bottom Sediment Disposal Method.** The Discharger shall identify the specific means of preventing sediments from the water storage facility from discharging to State waters. The BMPs plan shall also identify where and how these sediments will be disposed.

4. **Discharge Point Location and Stream Bank Protection.** The BMPs plan shall also include a map indicating the location where the dewatering effluent is expected to enter the stream, and the proposed flow rate to prevent stream bank erosion. The calculation used to determine this flow rate shall be included. The BMPs plan shall also describe the stream bank stabilization method to be used at the point of discharge.

IX. AUTHORIZATION OF REPRESENTATIVE

Authorization statements are provided for the owner to complete if he wishes to authorize a representative to process this NOI for him. A standard authorization statement is provided under item IX. The owner may provide his own customized statement in a separate letter if the standard statement does not appropriately limit the authority. If a separate authorization letter is provided, this letter shall be signed by the qualified person (see item X below for the requirement of the qualified person).

Provide the duly authorized representative's information in the applicable item(s). There shall be only one duly authorized representative at any time. The owner may change the designated duly authorized representative at any time during the processing of this NOI. The duly authorized representative will no longer be authorized effective as of the date of receipt of any new authorization statement from the owner.

X. CERTIFICATION

The person certifying this NOI Form must meet one of the following descriptions and be employed by the owner listed in item I (refer to 40CFR 122.22 for more detailed requirements):

- For a corporation: (1) A president, secretary treasurer, or vice president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- For a municipality, State, Federal or other public agency: either a principal executive officer or ranking elected official.

XI. APPLICATION FEE AND MAILING INSTRUCTIONS

No application will be considered complete without the applicable fee. For discharges regulated under this General NPDES Permit, annual fees are based on California Code of Regulations (CCR) Title 23, Division 3, Chapter 9, Section 2200 (b) (9). The Regional Water Board may modify this instruction at any time to reflect a new CCR fee schedule. At this time, the application fee is **$3,437** per discharge outfall.

Submit the complete NOI, with attachments, and the fee, to the Regional Water Board mailing address as indicated in the NOI.

ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [*40 CFR §122.41(a)(1)*].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [*40 CFR §122.41I*].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [*40 CFR §122.41(d)*].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [*40 CFR §122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR §122.41(g)*].

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [*40 CFR §122.5I*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [*40 CFR §122.41(i)*] [*CWC 13383I*]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [*40 CFR §122.41(i)(1)*];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [*40 CFR §122.41(i)(2)*];

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [*40 CFR §122.41(i)(3)*];

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [*40 CFR §122.41(i)(4)*].

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [*40 CFR §122.41(m)(1)(i)*].

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [*40 CFR §122.41(m)(1)(ii)*].

2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [*40 CFR §122.41(m)(2)*].

3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [*40 CFR §122.41(m)(4)(i)*]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [*40 CFR §122.41(m)(4)(A)*];

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [*40 CFR §122.41(m)(4)(B)*]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)I*].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [*40 CFR §122.41(m)(4)(ii)*].

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [*40 CFR §122.41(m)(3)(i)*].

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions – Reporting V.E below [*40 CFR §122.41(m)(3)(ii)*].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [*40 CFR §122.41(n)(1)*].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [*40 CFR §122.41(n)(2)*].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [*40 CFR §122.41(n)(3)*]:

a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];

b. The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [*40 CFR §122.41(n)(3)(iii)*]; and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §122.41(n)(3)(iv)*].

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR §122.41(n)(4)*].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR §122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR §122.41(b)*].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [*40 CFR §122.41(j)(1)*].

B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [*40 CFR §122.41(j)(4)*] [*40 CFR §122.44(i)(1)(iv)*].

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years

from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [*40 CFR §122.41(j)(2)*].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];
2. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];
3. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];
4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];
5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and
6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

C. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

1. The name and address of any permit applicant or Discharger [*40 CFR §122.7(b)(1)*]; and
2. Permit applications and attachments, permits and effluent data [*40 CFR §122.7(b)(2)*].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Water Board, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, SWRCB, or USEPA copies of records required to be kept by this Order [*40 CFR §122.41(h)*] [*CWC 13267*].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, SWRCB, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [*40 CFR §122.41(k)*].

2. All permit applications shall be signed as follows:
   a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making

major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [*40 CFR §122.22(a)(1)*];

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [*40 CFR §122.22(a)(2)*]; or

c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [*40 CFR §122.22(a)(3)*].

3. All reports required by this Order and other information requested by the Regional Water Board, SWRCB, or USEPA shall be signed by a person described in paragraph (b) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in paragraph (2.) of this provision [*40 CFR §122.22(b)(1)*];

   b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [*40 CFR §122.22(b)(2)*]; and

   c. The written authorization is submitted to the Regional Water Board, SWRCB, or USEPA [*40 CFR §122.22(b)(3)*].

4. If an authorization under paragraph (3.) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3.) of this provision must be submitted to the Regional Water Board, SWRCB or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22I].

5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:
   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of

the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations" [*40 CFR §122.22(d)*].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [*40 CFR §122.41(l)(4)*].

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or SWRCB for reporting results of monitoring of sludge use or disposal practices [*40 CFR §122.41(l)(4)(i)*].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [*40 CFR §122.41(l)(4)(ii)*].

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [*40 CFR §122.41(l)(4)(iii)*].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [*40 CFR §122.41(l)(5)*].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [*40 CFR §122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

    a. Any unanticipated bypass that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(A)*].

b. Any upset that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(B)*].

c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)I*].

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [*40 CFR §122.41(l)(6)(iii)*].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [*40 CFR §122.41(l)(1)*]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b) [*40 CFR §122.41(l)(1)(i)*]; or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [*40 CFR §122.41(l)(1)(ii)*].

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [*40 CFR §122.41(l)(1)(iii)*].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [*40 CFR §122.41(l)(2)]*.

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [*40 CFR §122.41(l)(7)*].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the

Regional Water Board, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information [*40 CFR §122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Clean Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*40 CFR §122.41(a)(2)*] [*CWC 13385 and 13387*].

B. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*40 CFR §122.41(a)(3)*].

C. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [*40 CFR §122.41(j)(5)*].

D. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*40 CFR §122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [*40 CFR §122.42(a)*]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(1)*]:

    a. 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

    b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(1)(ii)*];

    c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(1)(iii)*]; or

    d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(1)(iv)*].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(2)*]:

    a. 500 micrograms per liter (µg/L) [*40 CFR §122.42(a)(2)(i)*];

    b. 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(2)(ii)*];

    c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(2)(iii)*]; or

    d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(2)(iv)*].

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code (CWC) Sections 13267 and 13383 also authorize the Regional Water Quality Control Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and State regulations.

I. GENERAL MONITORING PROVISIONS

A. Reporting responsibilities of waste Dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the CWC and San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Resolution No. 73-16.

B. The principal purposes of a monitoring program by a waste Discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements (WDRs) and prohibitions established by the Regional Water Board, (2) to facilitate self-policing by the waste Discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

C. Sampling is required during the entire year when discharging. All analyses shall be conducted using current United States Environmental Protection Agency (USEPA) methods that have been approved by the USEPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5, or equivalent methods that are commercially and reasonably available and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits and to perform reasonable potential analysis. Equivalent methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer following consultation with the State Water Resources Control Board's (State Water Board's) Quality Assurance Program.

D. Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of CWC Section 13176, and must include quality assurance/quality control data with their reports.

E. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained by the Discharger and accessible and retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board or Regional Administrator of the USEPA, Region IX. Such records shall show the following for **each** sample:

1. Identity of sampling and observation stations by number.
2. Date and time of sampling and/or observations.
3. Method of sampling.
4. Full report for rainbow trout bioassay test (96-hour static bioassay renewal).

5. Date and time that analyses are started and completed (if applicable), and name of personnel performing the analyses.
6. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to a specific section of Standard Methods (SM) or the standard USEPA method number is satisfactory.
7. Calculations of results.
8. Results of analyses and/or observations.

F. If the Discharger wishes to invalidate any measurement, the letter of transmittal will include a formal request to invalidate the measurement, the original measurement in question, the reason for invalidating the measurement, all relevant documentation that supports the invalidation (e.g., laboratory sheet, log entry, test results, etc.), and discussion of the corrective actions taken or planned (with a time schedule for completion) to prevent recurrence of the sampling or measurement problem.

G. A tabulation reflecting bypassing and accidental waste spills shall be maintained.

H. A copy of this Order, a complete copy of the Notice of Intent (NOI) filed, documentation of the authorization to discharge received from the Regional Water Board (i.e., the Notice of General Permit Coverage [NGPC]), a full copy of the Operations and Maintenance (O&M) Manual, and any other documents relevant to the operation and maintenance of the treatment facility shall be stored at or near the treatment facility. These documents help the Dischargers' staff responsible for compliance assurance activities and shall be made available to Regional Water Board staff during inspections. The Dischargers' staff responsible for compliance assurance activities shall inspect the Facility as frequent as required by the O&M Manual.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order.

Table E-1: Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Effluent	M-001 through M-"n" (E-xx[2])	At any point in the outfall between the point of discharge to the receiving water(s) and the point at which all waste tributary to that outfall is present. If the effluent first discharges into a separate storm drain system, the sampling point for compliance purpose shall be the point at which all waste tributary to the outfall and before commingling with the water in the storm drain.
Receiving Waters [1]	R-001(A,B,C,…) (CB-XX[2])	At a point in the receiving water and located upstream of the discharge point where impacts from the discharge would not be expected.[3]
	R-002(A,B,C,…) (C-XX[2])	At a point in the receiving water on the edge of the mixing zone,[3] or if mixing zone cannot be determined, within 50 feet downstream of the discharge outfall.

[1] If there is only one discharge outfall, the name R-001 or R-002 should be used. Otherwise, R-001A and R-002A for discharge point 001, R-001B and R-002B for discharge point 002, and so on are used for multiple discharge locations.
[2] The names in the parenthesis are those used in the previous General Permit.

[3] The Discharger can determine the exact receiving water sampling locations if a mixing zone can be determined based on a previous study.

III. REQUIRED EFFLUENT SAMPLING, ANALYSES AND OBSERVATIONS

Effluent monitoring is only required when discharging to the receiving waters. The schedule of effluent sampling, analyses and observation shall be that given in Tables E-2, E-3, and E-4 below.

Routine discharges (Table E-2) can be intermittent or continuous discharges. Routine discharges are normally planned or scheduled discharges. Examples of routine discharges are discharges of filter backwash water, treatment unit dewatering/drainage water, leakage water, treatment system flushing water during hydrotesting with facility start-up after facility shut down, excess raw water release, etc.

Non-routine discharges (Table E-3) are normally unplanned or emergency discharges such as discharges from treatment unit overflows and broken waterlines within the treatment facility, etc.

"Water storage facility" (Table E-5) is a general term that includes, but is not limited to, tanks, ponds, reservoirs or any other water storage unit at a surface water treatment facility.

Table E-2: Schedule of Sampling, Analysis, and Observations for Routine Discharges

Parameter	Units [1]	Sample Type[2]	Minimum Sampling Frequency [3]
Flow Rate and volume [4]	MGD/MG	Continuous or daily	1/day
Total Suspended Solids (TSS)	mg/L	C-24	1/month
Total Chlorine Residual [5]	mg/L	Grab	Continuous or Hourly
pH	s.u.	Grab	2/week
Acute Toxicity [6]	% survival	C-24	1/quarter
Turbidity	NTU	Grab	1/month
Copper	µg/L	C-24	1/quarter
Zinc	µg/L	C-24	1/quarter
Mercury [7]	µg/L	C-24/Grab	Semiannual (summer/winter)
Selenium [8]	µg/L	C-24	Semiannual (summer/winter)
Arsenic, Cadmium, Chromium (VI), Lead, Nickel, Silver.	µg/L	Grab or C-24 as specified by testing method	Semiannual (summer/winter)
Chloroform [5]	µg/L	Grab	1/quarter
Dichlorobromomethane [5]	µg/L	Grab	1/quarter
Chlorodibromomethane [5]	µg/L	Grab	1/quarter
Bromoform [5]	µg/L	Grab	1/quarter

Table E-3: Schedule of Sampling, Analysis, and Observations for Non-Routine Discharges

Parameter	Units [1]	Sample Type[2]	Minimum Sampling Frequency [3]
Flow Rate and volume [4]	MGD/MG	Continuous or daily	Once per occurrence
TSS	mg/L	Grab	Once per occurrence
pH	s.u.	Grab	Once per occurrence
Total Chlorine Residual	mg/L	Grab	Once per occurrence
Turbidity	NTU	Grab	Once per occurrence

Table E-4: Schedule of Sampling, Analysis, and Observations for On-Site Water Storage Facility Dewatering

Parameter	Units [1]	Sample Type[2]	Minimum Sampling Frequency [3]
Flow Rate and Volume[4]	MGD/MG	Continuous or daily	Once per occurrence
Duration of discharge	Hours and minutes	N/A	Once per occurrence
TSS	mg/L	Grab	Three times per occurrence [9]
Total Settleable Matter	mL/L-hr	Grab	Three times per occurrence [9]
pH	s.u.	Grab	Once per occurrence
Total Chlorine Residual	mg/L	Grab	Once per occurrence
Turbidity	NTU	Grab	Three times per occurrence [9]
Total PCBs	µg/L	Grab	Once per occurrence if water storage facilities contain PCB material

Footnotes for Tables E-2, E-3, and E-4

[1] Unit Abbreviations
µg/L = micrograms per liter
mg/L = milligrams per liter
mL/L/hr = milliliters per liter per hour
MG = million gallons
MGD = million gallons per day
NTU = nephelometric turbidity units
s.u. = standard units

[2] Sample Type
Continuous = measured continuously, and recorded and reported daily
C-24 = 24-hour composites may be made up of discrete grabs collected over the course of a day and volumetrically or mathematically flow-weighted. Samples for inorganic pollutants may be combined prior to analysis. At least one sampling day in each week shall reflect one day of peak loading and during major unit operation shutdown or startup.
Grab = Grab samples of effluent shall be collected during periods of maximum peak flows and shall coincide with effluent composite sample days.

Samples shall be taken on random days.

[3] Minimum sampling frequency. If the discharge lasts less than one day in a 7-day period, the twice per week (2/week) monitoring frequency is once per discharge.

If two consecutive samples of a constituent monitored on a weekly or monthly basis in a 30-day period exceed the monthly average effluent limit for any parameter (or if the required sampling frequency is once per month and the monthly sample exceeds the monthly average limit), the sampling frequency shall be increased to daily until the additional sampling shows that the most recent 30-day moving average is in compliance with the monthly average limit.

If any maximum daily limit is exceeded, the sampling frequency shall be increased to daily until two samples collected on consecutive days show compliance with the maximum daily limit.

[4] Flow Monitoring. Flows shall be monitored at each discharge outfall by flow meters or estimated if no flow meter is in place and the following shall be reported in self-monitoring reports:

a. Daily total flow volume (MG).
b. Discharge duration during a day, in hours.
c. Daily average flow rate (MGD), if not measured directly, then calculated using data from a. and b. above. If duration is not recorded, specify averaging period, i.e., 24 hours vs. estimated discharging hours.
d. Monthly total flow volume (MG).

e. Discharge days during a month.
f. Average daily maximum and average daily minimum flow rates (MGD) of discharge days (i.e., do not report zero) in a month.

All wastewater flows, including commingled storm water, discharged through all outfalls included in the Notice of General Permit Coverage shall be reported.

Some discharge points are not equipped with flow meters; flows can be estimated in this case. The Executive Officer may require the Discharger to install flow meters during the permit term.

[5] The hourly monitoring frequency may be reduced to once every two hours if the first three samples show compliance with the effluent limit for total chlorine residual given in Table 1 of this Order. The total residual chlorine and THMs monitoring requirements are waived for water treatment plants that do not chlorinate.

[6] Acute Toxicity monitoring (96-hour static renewal bioassay test). The test shall be performed according to Section IV below. Acute toxicity monitoring is not required for raw water discharges.

[7] Mercury. The Discharger shall use ultra-clean sampling methods (USEPA 1669) to the maximum extent practicable and ultra-clean analytical methods (USEPA 1631) for mercury monitoring. The Discharger may use alternative methods of analysis (such as USEPA 245) if that alternate method has a method detection limit (MDL) of 0.0002 µg/L or less.

[8] Selenium must be analyzed for by ICP/MS or the atomic absorption gaseous hydride procedure (USEPA 200.8 or standard method 3114B or C).

[9] One sample shall be taken prior to discharge, one just after initiating discharge and one just before terminating discharge. The samples shall be representative of effluent quality.

IV. WHOLE EFFLUENT ACUTE TOXICITY TESTING REQUIREMENTS

Compliance with the whole acute toxicity requirements of this Order shall be achieved in accordance with the following:

1. Acute toxicity of effluent limits shall be evaluated by measuring survival of test organisms exposed to 96-hour static renewal bioassays.

2. Test species shall be the current species or a species approved by the Executive Officer.

3. All bioassays shall be performed according to 40 CFR 136, currently the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," 5th Edition. Exceptions may be granted by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

4. If specific identifiable substances in the discharge can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the receiving water, compliance with the acute toxicity limit may be determined after the test samples are adjusted to remove the influence of those substances. Written approval from the Executive Officer must be obtained to authorize such an adjustment.

5. Effluent used for fish bioassays must be dechlorinated prior to testing. Monitoring of the bioassay water shall include, on a daily basis, the following parameters: pH, dissolved oxygen, ammonia (if toxicity is observed), temperature, hardness, and alkalinity. These results shall be

reported. If the fish survival rate in the effluent is less than 70 percent or if the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new batches of fish and shall continue back to back until compliance is demonstrated.

6. The Discharger may indicate in the NOI the previous approvals by the Executive Officer and request for re-confirmation, e.g., testing species, renewal interval, etc. The Discharger may continue its current practice as long as a new method (currently the 5th edition method) allows such a variation.

V. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall monitor both upstream and downstream of discharge outfall at R-001 (A, B, C, ...) through R-"n" according to Table E-5 below:

Table E-5: Receiving Water Monitoring Requirements [6]

Parameter	Units [2]	Sample Type [4]	Minimum Sampling Frequency [1]
Stream Flow Rate	GPD	N/A	[3]
Dissolved Oxygen	mg/L and % saturation	Grab	[3]
Turbidity	NTU	Grab	[3]
pH	s.u.	Grab	[3]
TSS	mg/L	Grab	[3]
Temperature	°C	N/A	[3]
Hardness	mg/L as $CaCO_3$	Grab	[3]
Salinity [5]	ppt	Grab	[3]
Copper	ug/L	Grab	[3]
Zinc	ug/L	Grab	[3]
Arsenic	ug/L	Grab	[3]
Cadmium	ug/L	Grab	[3]
Chromium VI	ug/L	Grab	[3]
Lead	ug/L	Grab	[3]
Mercury	ug/L	Grab	[3]
Nickel	ug/L	Grab	[3]
Selenium	ug/L	Grab	[3]
Silver	ug/L	Grab	[3]
Chloroform	ug/L	Grab	[3]
Dichlorobromomethane	ug/L	Grab	[3]
Chlorodibromomethane	ug/L	Grab	[3]
Bromoform	ug/L	Grab	[3]

Footnotes for Table E-5

[1] a. Dischargers to tidally influenced receiving waters shall collect samples at each station on each sampling day during the period within 1 hour following lower slack water. Where sampling during the lower slack water period is not practical, sampling shall be performed during a higher slack water period.

b. Samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

[2] Unit Abbreviations
$CaCO_3$ = calcium carbonate

°C = degrees Celsius
GPD = gallons per day
ug/L = micrograms per liter
mg/L = milligrams per liter
NTU = Nephelometric turbidity units
ppt = parts per thousand
s.u. = pH standard unit

[3] Dischargers shall determine the receiving water monitoring frequency based on site-specific conditions. The data must be sufficient to characterize the concentration of each toxic pollutant in the ambient receiving water. The data on the conventional water quality parameters (pH, salinity, and hardness) should also be sufficient to characterize these parameters in the ambient receiving water at the point after the discharge has mixed with the receiving waters. The receiving water shall be monitored at least annually.
[4] Pollutants and pollutant parameters shall be analyzed using the analytical methods described in 40 CFR 136. For priority pollutants, the methods must meet the lowest MLs specified in SIP Attachment 4. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.
[5] Salinity measurements are not required in fresh receiving waters such as streams, lakes, and reservoirs. Salinity measurements are required for salt, brackish, or estuarine receiving waters.
[6] The Discharger shall note in its annual report any monitoring locations that were dry or that could not be sampled, and explain why they could not be sampled.

VI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (**Attachment D and G**) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs. Until such notification is given, the Discharger shall submit SMRs in accordance with the requirements described below.

2. The Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year according to the schedule provided below. The report shall contain the items described in Standard Provisions and Reporting Requirements, and SMP Part A, August 1993 (**Attachment G**).

Facilities in County of	**Reporting year**	**Annual report submission date**
Marin, Napa, Sonoma Counties	January 1 to December 31	February 15
Contra Costa, Solano Counties	April 1 to March 31	May 15
Alameda, San Francisco Counties	July 1 to June 30	August 15
San Mateo, Santa Clara Counties	October 1 to September 31	November 15

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-6: Monitoring Periods

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
Continuous	Effective date of permit	All
1/day	Effective date of permit	Daily
2/week	Effective date of permit	Twice per week
1/week	Effective date of permit	Once per week
1/month	Effective date of permit	Once per calendar month
1/quarter	Effective date of permit	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
2/year	Effective date of permit	Once during wet season (normally during November 1 through April 30), once during dry season (normally during May 1 through October 31)
1/year	Effective date of permit	January 1 through December 31, alternate between once during dry season (normally May 1—October 31), once during wet season (normally November 1—April 30)
1/5 years	Effective date of permit	Once during the permit term

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (±a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. The Dischargers shall instruct laboratories to establish calibration standards so that the RL value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. The Discharger shall not use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.

6. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (**Attachment D** and **G**), to the address listed below:

   Executive Officer
   California Regional Water Quality Control Board
   San Francisco Bay Region
   1515 Clay Street, Suite 1400
   Oakland, CA 94612
   ATTN: NPDES Wastewater Division

8. The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. The Electronic Reporting System (ERS) format includes, but is not limited to, a transmittal letter, summary of violation details and corrective actions, and transmittal receipt. If there are any discrepancies between the ERS requirements and the "hard copy" requirements listed in the MRP, then the approved ERS requirements supersede.

C. Discharge Monitoring Reports (DMRs)

1. As described in Section IX.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of DMRs. Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (**Attachment D**). The Discharger shall submit the original DMR and one copy of the DMR to one of these addresses listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format as EPA Form 3320-1.

D. 24-Hour Reporting

1. Non-chlorinated water discharge

The Discharger shall report by telephone to Regional Water Board staff any non-routine discharge of 50,000 gallons or more non-chlorinated water (total chlorine residual is 0.0 mg/L) within 24-hours of becoming aware of the discharge. The Discharger shall provide the Regional Water Board with a written report within 5 days after the 24-hour telephone report. All discharges shall be summarized and reported in the quarterly self-monitoring report as required under Section IX.B.2 of this MRP.

2. Chlorinated water discharge

The Discharger shall report any discharge that has a total chlorine residual greater than 0.0 mg/L to Regional Water Board staff by telephone within 24-hours of becoming aware of the discharge if (1) the discharge volume is 1,000 gallons or more, or (2) the discharge may endanger health or environment. The Discharger shall provide the Regional Water Board with a written report within 5 days after the 24-hour telephone report. Dischargers shall summarize all other chlorinated water discharges and report them to the Regional Water Board no later with the quarterly self-monitoring report as required under Section IX.B.2 of this MRP. All discharges shall also be summarized and reported in the quarterly self-monitoring report.

E. Other Reports

Not applicable.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

This Order reissues the National Pollutant Discharge Elimination System (NPDES) General Permit in Order No. R2-2003-0062 (the previous Order), adopted by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) on September 21, 2003. It regulates discharges from surface water treatment facilities producing potable water.

II. FACILITY DESCRIPTION

A. General Description of the Facilities

1. **Surface Water Treatment Facilities.** Surface water treatment facilities defined in this General Permit normally include one or more of the following water treatment processes: coagulation/flocculation, sedimentation, filtration, and disinfection.

   a. **Coagulation/flocculation:** This process causes particles in the raw water to aggregate. Chemical coagulants are added to the raw water to stabilize the electrical charges on suspended particles, followed by gentle stirring to cause the suspended particles to aggregate into larger "floc." Chemical coagulants generally include aluminum sulfate, ferrous sulfate, ferric chloride, lime, and alum-polymer or iron-polymer blends.

   b. **Sedimentation:** This process allows suspended particles to settle out.

   c. **Filtration:** Suspended particles are removed from process water as it flows through filter media. Commonly used filter media include crushed anthracite coal, garnet, sand, granular activated carbon (GAC), green sand, or combinations of two or more filter media.

   d. **Disinfection:** Disinfection reduces the number of pathogenic microorganisms in water. Chlorine gas, chlorine dioxide, ozone, and ultraviolet light are commonly used as disinfectants. Many treatment facilities add both ammonia and chlorine, either separately or simultaneously, to form chloramines. Chloramines are highly stable and can provide residual disinfection throughout the distribution system. Chloramination also produces fewer byproducts, such as chlorophenolic substances (which may cause objectionable taste and odor) and trihalomethanes (which are carcinogens), than standard chlorination.

   e. **Pre-treatment:** Some treatment facilities treat raw water before the coagulation/flocculation process. Pre-treatment processes include chemical addition or mechanical removal of large particles in the raw water before coagulation/flocculation.

f. **Post-treatment:** Most treatment facilities provide further treatment after disinfection. Post treatment generally includes fluoridation for dental health, pH adjustment for corrosion control, and chloramination to provide disinfection in the distribution system.

4. **Existing Facilities and New Facilities**. An Existing Facility is a facility that is covered under Order No. R2-2003-0062 or that holds an individual NPDES permit for its discharge. A New Facility is a facility that is still under construction or that has completed its construction but has not commenced discharge to State waters.

B. General Description of the Discharges

This General Permit covers discharges generated by surface water filtration plants, including:

- filter backwash and filter-to-waste (rewash) streams;
- sedimentation underflow/washwater;
- decant water, including that from solids settling basins;
- treatment unit overflow and broken water lines within the treatment facility;
- leakage water;
- treatment unit dewatering and drainage water;
- treatment system flushing water during hydrotesting with facility start-up and after facility shut-down;
- on-site water storage facility drainage; and
- excess raw water release if the Discharger alters the raw water at or upstream of the treatment plant in any way (e.g., by chemical addition).

These discharges are referred to as "wastewater" in this permit. The term "wastewater" does not mean domestic sewage for purposes of this permit. This permit does not permit any discharges of domestic sewage.

This General Permit does not cover discharges:

- from membrane filtration processes;
- to a sanitary sewer system;
- of domestic sewage generated at the facility;
- from water conveyance systems outside the facility;
- from raw or source water reservoirs;
- of raw water that is not altered by the Discharger; or
- that are already covered under an individual NPDES permit or Waste Discharge Requirement.

Discharges from membrane filtration plants that are similar to those from surface water treatment plants (i.e., from treatment units that are not membrane filtration treatment units and are similar to treatment units found in surface water treatment plants) are covered by this General Permit. Other waste streams produced by water treatment plants that are not covered by this General Permit include wastes from ion exchange regeneration processes and minor waste streams from laboratory analyses and plant washdown.

Common filtration methods in the water treatment industry include conventional and direct filtration, and slow sand filtration in smaller treatment facilities (application rates of 40 to 150 gallons per day per square foot [gpd/ft^2]). Conventional filtration refers to a series of processes, including coagulation, flocculation, sedimentation, and filtration, while direct filtration refers to a series of processes that include coagulation and filtration, but do not include sedimentation. Slow sand filtration is a process where raw water passes directly through a bed of sand at low velocity.

In conventional water treatment plants, coagulation and flocculation steps cause solids to accumulate and settle in sedimentation basins. Particles that pass through sedimentation steps are removed by filtration. In direct filtration plants, raw water goes directly from coagulation/flocculation to filtration. Although conventional water treatment plants usually treat lower quality raw water (i.e., raw water containing more solids) than direct filtration plants, solids loadings to the filters in direct filtration plants may be higher because of the absence of a sedimentation step. The principal wastewaters produced in these water treatment plants include spent filter backwash, thickener supernatant, liquids from dewatering processes, and filter-to-waste (rewash) streams. Very little wastewater is generated in plants utilizing slow sand filters, as organics, silt, and other particles are trapped in the upper portions of the filter, and instead of backwashing, filter media is periodically removed and replaced. New filter sand is added after several scrapings, when the filter depth reaches a predetermined minimum thickness.

Except for slow sand filters, filter media are typically cleaned by backwashing (i.e., reversing flow through the filter with clean water at a flow rate sufficient to separate particles from the media). A typical backwashing operation lasts for 10 to 25 minutes with maximum application rates of 15 to 20 gpm/ft^2. Because a high flow rate is used, a large volume of spent filter backwash water is produced in a relatively short time. Small plants may produce spent filter backwash intermittently; but larger plants with numerous filters may produce backwash continuously as filters are rotated for backwashing. Spent filter backwash can comprise 2 to 10 percent of a plant's total finished water production.

The quality of filter backwash varies from plant to plant. In the *Filter Backwash Recycling Rule Technical Guidance Manual* (EPA 816-R-02-014, December 2002), the USEPA Office of Ground Water and Drinking Water cited studies that report concentrations of Giardia and Cryptosporidium in spent filter backwash at levels 16 to 21 times higher than in corresponding raw water samples. Dissolved organic carbon and zinc concentrations have been reported to show a threefold increase; and total trihalomethanes (TTHMs) have shown a 92 fold increase in spent filter backwash, when compared to raw water after chemical addition. Turbidity levels of filter backwash have shown wide variability, from 1 to 400 nephelometric turbidity units (NTUs), due to variability of raw waters, upstream treatment processes, filter design and operation, and backwashing practices. Total organic carbon (TOC), aluminum and iron (carryover from aluminum- and iron-based coagulants), and manganese concentrations can be higher in spent filter backwash than those found in both raw water and raw water after chemical addition. TSS levels in spent filter backwash may also be high and will vary from plant to plant and during the backwash cycle itself.

Filter-to-waste (rewash) water is generated by filters immediately after being placed back into service following backwashing. This water is generally of very high quality and amounts to approximately 0.5 percent of the total amount of water filtered. Filter backwash and filter-to-

waste streams will typically account for most of the volume of wastewater discharged from water treatment plants. Using estimates of 2 – 10 percent of plant production for filter backwash and 0.5 percent of plant production for filter-to-waste or rewash water, wastewater discharges from water treatment plants can amount to approximately 25,000 – 105,000 gallons per million gallons of production.

Other waste streams generated by water treatment plants are those that result from gravity thickening or mechanical sludge dewatering processes. Thickener supernatant is the decanted water that results from sludge thickening by gravity in clarifiers, sedimentation basins, backwash holding tanks, lagoons, and other similar units. The quantity of sedimentation basin thickener supernatant can be in the range of 75 to 95 percent of the volume of sludge produced, with sludge volumes being approximately 0.1 to 3 percent of the plant flow. Mechanical processes, including belt presses, centrifuges, filter presses, vacuum presses, and other sludge concentrating equipment are used to dewater sludge and thereby reduce volume prior to disposal. Only small, intermittent wastewater streams are produced as a result of dewatering processes.

Thickener supernatant and liquid waste streams from dewatering processes may be recycled or discharged at a frequency that depends on the quantity of sludge produced. Microbial, inorganic, and organic contaminants that concentrate in the sludge can remain in these waste streams if sludge is not properly settled, treated, and/or removed. In the *Filter Backwash Recycling Rule Technical Guidance Manual* (EPA 816-R-02-014, December 2002), EPA cited studies that show elevated concentrations of TTHMs, TOC, and manganese in thickener supernatant, relative to concentrations in raw water after chemical addition. Waste streams resulting from dewatering processes can contain elevated levels of turbidity, TOC, TTHMs, as well as aluminum, iron, and manganese.

Discharges covered by this General Permit are discussed further below:

1. **Filter backwash water discharge and storage/settling basin discharge.** Filters require periodic backwashing to remove accumulated solids. The backwash frequency depends on the quality of the incoming water and number of hours the filter has been in service. The volume of backwash water generated during backwashing varies from a few hundred thousand gallons to over a million gallons depending on the number of filters backwashed, the frequency of backwashing, the size of the filter, influent water quality, etc.

   Many facilities recycle backwash water by pumping it into storage or settling basins, then into the plant influent to be treated with raw water. Most facilities discharge backwash water intermittently; a few facilities do not recycle their backwash water and discharge it.

   Other reasons to discharge backwash and storage/settling basin water are operational errors or severe storm events that cause storage or settling basins to overflow. Some facilities divert all their wastewaters, such as backwash water, treatment unit rinse water, treatment unit overflows, and storm water runoff to storage or settling basins. Discharges from storage or settling basins consist of the various wastewaters accumulated in the basins.

2. **Discharges from treatment unit overflow and broken waterlines within the treatment facility.** These are usually non-routine, emergency discharges due to operational or instrument errors that cause one or several treatment units to overflow to a State water either directly or through a storm drain.

3. **Leakage water.** Some filters and other water treatment units include sub-drains to collect leaks. Collected leakage is normally diverted to the backwash water settling basin and discharged with backwash water. Alternatively, a sub-drain may discharge leakage water directly to a storm drain, and through the storm drain to a State water.

4. **Treatment unit dewatering/drainage water.** Occasionally, treatment units must be taken out of service for maintenance or for a seasonal facility shutdown. In this case, treatment units must be drained or dewatered. Drainage water may be diverted to a storage or settling basin before discharge, or may be discharged directly to a State water.

5. **Treatment system flushing water during start-up after facility shut-down.** Some treatment facilities are operated seasonally. When a seasonal facility is re-started, the treatment units and piping systems must be flushed. Water from system flushing may be diverted to a storage or settling basin before discharge, or may be discharged directly to a State water.

6. **On-site water storage facility drainage.** Some facilities store clean water on-site, either for filter backwashing, later distribution to customers, or both. Occasionally, these water storage facilities require maintenance and need to be drained. The drainage water is sometimes discharged to a State water.

7. **Excess raw water released from the treatment facility.** Some facilities receive raw water transported by aqueducts from remote locations. Water demand varies by the hour, and it is infeasible to frequently adjust aqueduct flows to match water demand. Therefore, excess aqueduct flows may need to be released to State waters. Water treatment facilities may also need to dispose raw water due to operational situations. This General Permit does not regulate discharge of raw water that has not been altered. This General Permit does regulate discharge of raw water that has been altered, such as by chemical addition for control of corrosion or algae.

C. Facilities that Qualify for Categorical Exceptions per Resolution R2-2008-0101

This General Permit covers two categories of discharges. Group A discharges do not qualify as "short-term or seasonal" as defined in Resolution No. R2-2008-0101. Group B discharges are "short-term or seasonal." They last no more than 2,200 hours per year and qualify for a categorical exception to the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). As a result, these two groups must comply with somewhat different effluent limitations and provisions as this Order sets forth.

D. Discharge Points and Receiving Waters

This Order applies to all qualified discharges to all non-ocean receiving waters of the San Francisco Bay Region, including inland surface waters and enclosed bays. The beneficial uses of these receiving waters are described in Section II.J, Water Quality Control Plan, of this Order.

E. Summary of Existing Requirements

Order No. R2-2003-0062 includes the following effluent limitations:

Table F-1. Effluent Limits from Previous Permit

Constituents	Instantaneous Maximum	Daily Maximum	Monthly Average	Weekly Average
a. Total Suspended Solids (TSS), mg/L	---	---	30	45
b. Total Settleable Solids, mL/L-hr(1)	---	1.0	---	---
c. Total Chlorine Residual, mg/L	0.0	---	---	---
d. pH, in pH units (2)	6.5-8.5 (not less than 6.5 and not greater than 8.5)			
e. Acute Toxicity	The survival of bioassay test organism(s) in 96-hour bioassays of undiluted effluent shall be a three-sample median of not less than 90 percent survival AND a single-sample maximum of not less than 70% for continuous discharges; or a single sample maximum of not less than 70% survival for intermittent discharges. A bioassay test showing survival of less than 70% represents a violation of this effluent limit.			

Unit Abbreviations
µg/L = micrograms per liter
mg/L = milligrams per liter
mL/L/hr = milliliters per liter per hour

(1) Settleable matter limit only applies to on-site water storage facility dewatering effluent discharge.
(2) Exceedance of pH limit does not constitute a violation if the discharger demonstrates that the source water is also high in pH and the high pH in its discharge effluent is not caused by its operations.

F. Effluent Characterization

Table F-2, below, presents the available effluent monitoring data from 15 water treatment plants in the San Francisco Bay Region between 2005 and 2007.

Table F-2. Effluent Characterization 2005 - 2007

Pollutant	Units	No. of Samples	No. of Non-Detects	Mean Conc. [1]	Max Conc.
Settleable Solids	mL/L/hr	2	0	0.9	1.5
TSS	mg/L	419	251	3.0	20
Total Chlorine Residual	mg/L	1377	1287	0.09	2.2
Arsenic	µg/L	11	8	0.57	1.0
Cadmium	µg/L	11	11	0.23	1.0
Chromium (VI)	µg/L	12	6	0.60	2.0
Copper	µg/L	18	1	42	380
Lead	µg/L	10	1	0.55	1.3
Mercury	µg/L	6	2	0.070	0.013
Nickel	µg/L	10	1	1.3	4.7
Selenium	µg/L	10	8	0.99	4.5

Silver	µg/L	11	11	0.29	1.0
Zinc	µg/L	18	0	24	54
Bromoform	µg/L	11	11	0.53	0.69
Chlorodibromomethane	µg/L	10	1	2.5	5.7
Dichlorobromomethane	µg/L	10	7	4.2	21
Chloroform	µg/L	10	0	30	45

[1] Method detection limits (MDLs) were used as measured concentrations when determining mean concentrations.

G. Planned Changes

As required in **Attachment D** and Section VI.10.c of this Order, a Discharger authorized under this Order is required to submit notice to the Regional Water Board before making any material change in the character, location, or volume of the discharge.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to Section 402 of the federal Clean Water Act (CWA) and its implementing regulations adopted by the USEPA, and chapter 5.5, division 7 of the California Water Code (CWC) (commencing with Section 13370). It shall serve as an NPDES permit for the point source discharges described herein to surface waters of the Region. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, Division 7 of the CWC (commencing with Section 13260).

Pursuant to NPDES regulations at 40 CFR 122.28, States may request authority to issue general NPDES permits. On June 8, 1989, the State Water Board applied to the USEPA requesting revisions to its NPDES Program in accordance with 40 CFR 122.28, 123.62, and 403.10, including a request to add General Permit authority to its approved NPDES Program. On September 22, 1989, the USEPA, Region 9, approved the State Water Board's request, granting authorization for the State to issue general NPDES permits.

Pursuant to NPDES regulations at 40 CFR 122.28(a)(2), General Permits may be used to regulate point source discharges that:

1. Involve the same or substantially similar types of operations,
2. Discharge the same types of wastes,
3. Require the same effluent limitations,
4. Require the same or similar monitoring, and
5. In the opinion of the Executive Officer, are more appropriately controlled under a General Permit than under individual permits.

This Order becomes effective approximately on the date indicated provided the Regional Administrator of USEPA has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn. This General Permit does not cover direct discharges to the Pacific Ocean.

B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of CEQA (Public Resources Code Section 21100, et seq.) in accordance with CWC Section 13389. The action of granting categorical SIP exceptions for Group B dischargers complies with CEQA because it is consistent with Resolution No. R2-2008-0101, for which an initial study/mitigated negative declaration was prepared.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the San Francisco Basin (Region 2)* (hereinafter the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses of any water body specifically identified in Chapter 2 of the Basin Plan generally apply to its tributary streams. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which establishes a policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Applicable beneficial uses of surface waters of the San Francisco Bay Region are listed below.

   - Agricultural Supply
   - Areas of Special Biological Significance
   - Cold Freshwater Habitat
   - Ocean, Commercial and Sport Fishing
   - Estuarine Habitat
   - Freshwater Replenishment
   - Groundwater Recharge
   - Industrial Service Supply
   - Marine Habitat
   - Fish Migration
   - Municipal and Domestic Supply
   - Navigation
   - Industrial Process Supply
   - Preservation of Rare or Endangered Species
   - Water Contact Recreation
   - Non-Contact Water Recreation
   - Shellfish Harvesting
   - Fish Spawning
   - Warm Freshwater Habitat
   - Wildlife Habitat

   This Order implements applicable provisions of the Basin Plan.

2. **Basin Plan Prohibitions For Which Exceptions Are Necessary.** This Order exempts covered dischargers from certain provisions of the Basin Plan. The Basin Plan prohibits discharge of any wastewater that has particular constituents of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1. The wastewater discharges regulated by this Order may be exempted from these prohibitions because the main pollutants of concern in the effluent are total suspended solids (TSS) and total chlorine residual. There are effluent limits in this Order to limit the discharge of these pollutants. In general there should be no water quality concerns as long as the discharges are in compliance with these effluent limits. In part, the Basin Plan states:

   This prohibition will (a) provide an added degree of protection from the continuous effects of waste discharge, (b) provide a buffer against the effects of abnormal discharges caused by temporary plant upsets or malfunctions, (c) minimize public contact with undiluted wastes, and (d) reduce the visual (aesthetic) impact of waste discharges.

   As indicated in the Basin Plan, discharges of treated sewage and other discharges where the treatment processes is subject to upset contain particular characteristics of concern. The dilution requirement provides a contingency in the event of temporary treatment plant malfunction to minimize public contact with undiluted treated sewage. However, the discharges here do not contain treated sewage or wastewater from a treatment process that is subject to upset. Therefore, the prohibition does not apply in this event.

   Even if this prohibition did apply, the Basin Plan provides an exception:

   Exceptions … will be considered where: An inordinate burden would be placed on the discharger relative to beneficial uses protected … .

   Prohibition of the discharges from these facilities would result in a reduced supply and possible shortages of potable water, which would be a significant burden on the public served by these facilities.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, amending it on May 4, 1995, and November 9, 1999, and adopted the CTR on May 18, 2000, amending it on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to discharges from this facility

4. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The State Water Board amended the SIP on February 24, 2005, and the amendments became effective on May 31, 2005. The SIP

includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs) and requires dischargers to submit data sufficient to do so.

The SIP provides for a categorical exception to priority pollutant objectives for "short term or seasonal" discharges of drinking water provided certain conditions are met. The Regional Water Board approved categorical exceptions through Resolution No. R2-2008-0101, which allows such for exceptions for drinking water treatment facility discharges provided that specified conditions are met. Group B dischargers meet these conditions and are except from effluent limitations derived from certain priority pollutant objectives. However, they must meet other conditions to receive the exceptions.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [40 CFR 131.21; 65 Fed. Reg. 24641 (April 27, 2000)] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

6. **Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, incorporating the requirements of the federal antidegradation policy and requiring that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in Section IV.D of this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16.

7. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. As discussed in detail elsewhere in this Fact Sheet, the prohibitions, limitations, and conditions of this Order are consistent with applicable federal and State anti-backsliding requirements.

8. **Monitoring and Reporting Requirements.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC Sections 13267 and 13383 authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Plan (MRP), included as **Attachment E** to this Order, establishes monitoring and reporting requirements to implement federal and State requirements. The MRP may be amended by the Executive Officer pursuant to 40 CFR 122.62, 122.63, and 124.5.

D. Impaired Water Bodies on CWA 303(d) List

On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State pursuant to CWA Section 303(d) - specific water bodies where it is expected that water quality

standards will not be met after implementation of technology-based effluent limitations on point sources.

1. **Total Maximum Daily Loads (TMDLs).** The Regional Water Board plans to adopt TMDLs for pollutants on the 303(d) list in the San Francisco Bay Region within the next ten years. Future review of the 303(d) list for San Francisco Bay Region may result in revision of the schedules, provide schedules for other pollutants, or both.

2. **Wasteload Allocations.** TMDLs will establish waste load allocations (WLAs) for point sources and load allocations for non-point sources, and will result in achieving applicable water quality standards for the impaired waterbodies. Final effluent limitations for impairing pollutants for these Dischargers will ultimately be based on WLAs derived from the TMDLs.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, three options exist to protect water quality: (1) 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA Section 304(a); (2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or (3) an indicator parameter may be established.

Several specific factors affecting the development of limitations and requirements in this Order are discussed as follows:

A. Discharge Prohibitions

1. **Prohibition 1 (Discharge of effluent/treated wastewater at a location or in a manner different from that described in the NOI is prohibited):**

   This prohibition is based on the Basin Plan to protect beneficial uses of the receiving water from un-permitted discharges, and the intent of Sections 13260 through 13264 of the CWC relating to the discharge of waste to State waters without filing for and being issued a permit. This prohibition is unchanged from the previous permit.

2. **Prohibition 2 (The bypass or overflow of untreated or partially treated wastewater to waters of the United States is prohibited):**

   Discharge Prohibition No. 15 from Basin Plan Table 4-1, and the CWA prohibit the discharge of wastewater to surface waters except as authorized under an NPDES permit.

3. **Prohibition 3 (Discharge of bottom sediments from water storage facilities to State waters in such a manner as to cause nuisance or adversely affect beneficial uses is prohibited):**

   This prohibition is based on narrative objectives for sediments, settleable maters, suspended and floating materials specified in Chapter 3 of the Basin Plan. This prohibition is unchanged from the previous permit.

4. **Prohibition 4 (On-site storage of oil, fuel, and any other chemical storage causing contamination of storm water runoff and/or water and wastewater discharge is prohibited):**

   This prohibition implements the Basin Plan's Oil and Grease water quality objective. Although on-site hazardous material storage is subject to other regulations, this prohibition emphasizes that storm water pollution should be prevented. This prohibition is unchanged from the previous permit.

5. **Prohibition 5 (Discharge shall not cause a condition of pollution, contamination, or nuisance as defined in the Clean Water Act):**

   This is a general prohibition is based on the CWA and CWC. It is unchanged from the previous permit.

6. **Prohibition 6 (Group B discharges shall not exceed 2,200 hours per year at any one location):**

   Many of this Order's requirements for Group B dischargers are based on Resolution No. R2-2008-0101, which granted a categorical SIP exception to certain priority pollutant objectives. To qualify for this SIP exception based on Resolution No. R2-2008-0101, a discharge must be "short-term or seasonal," which Resolution No. R2-2008-0101 defines as not exceeding 2,200 hours per year.

B. Technology-Based Effluent Limitations

CWA Section 301(b) and NPDES regulations at 40 CFR 122.44 require permits to, at a minimum, meet applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards.

The CWA requires the USEPA to develop effluent limitations, guidelines and standards (Effluent Limitations Guidelines - ELGs) representing application of best practicable treatment control technology (BPT), best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and best available demonstrated control technology for new sources (NSPS) for specific industrial categories. Where USEPA has not yet developed ELGs for a particular industry or a particular pollutant, Section 402(a)(1) of the CWA and USEPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

Technology-based effluent limitations on the conventional pollutants TSS, settleable matter, pH, and total chlorine residual are based on the Basin Plan, Table 4-2, and BPJ. While these limits were developed primarily for sewage treatment facilities, they are applicable to other discharges. Most surface water treatment facilities in the San Francisco Bay Region already treat their backwash water effluent to remove solids before discharge. The Regional Water Board believes these limits are technically achievable, economically feasible, and necessary to protect the receiving waters, and consistent with limits from previous individual permits for similar facilities. These technology-based limits are discussed specifically below.

1 **pH.** The pH limitation from the previous permit of no less than 6.5 and no greater than 8.5 is retained by this Order. This limitation is based on Basin Plan Table 4-2 requirements, which apply to all dischargers in the San Francisco Bay Region.

2. **TSS.** Because filter backwash is a common component of discharges from water treatment plants, the Regional Water Board has determined that elevated levels of suspended solids in these discharges are likely, and that there is reasonable potential for the discharges to cause or contribute to exceedances of the narrative water quality objective for suspended material expressed in Section 3.3 of the Basin Plan. This Order retains the effluent limitations for TSS of an average monthly effluent limit (AMEL) of 30 mg/L and a maximum daily effluent limit (MDEL) of 45 mg/L from the previous permit. These limitations reflect Basin Plan Table 4-2 requirements, which apply to all dischargers in the San Francisco Bay Region.

3. **Settleable Solids.** This Order establishes a more stringent effluent limitation for settleable material than the previous permit based on Basin Plan Table 4-2 requirements, which apply to all dischargers in the San Francisco Bay Region. This Order establishes an MDEL for settleable solids of 0.2 mL/L/hr and an AMEL of 0.1 mL/L/hr.

4. **Chlorine.** Due to the standard use of chlorine for disinfection in the water treatment industry, its significant aquatic toxicity, and the lack of dilution assumed by this General Permit, the Regional Water Board has determined that elevated levels of chlorine in these discharges are possible, and that there is reasonable potential for the discharges to cause or contribute to exceedances of the narrative water quality objective for toxicity, expressed in Section 3.3 of the Basin Plan. The instantaneous maximum effluent limitation of 0.0 mg/L for total chlorine residual is retained from the previous permit by this Order. This limitation also reflects Basin Plan Table 4-2 requirements, which are applicable to all dischargers in the San Francisco Bay Region. Also retained from the previous permit is the reporting limit of 0.08 mg/L for residual chlorine field test kits and analyzers using Standard Methods 4500-Cl F and G. We have retained 0.08 mg/L as a reporting limit because it is a consistently achievable level for these analytical techniques.

C. Water Quality-Based Effluent Limitations

1. Scope and Authority

a. NPDES regulations at 40 CFR 122.44(d)(1)(i) require permits to include WQBELs for all pollutants (non-priority and priority) "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any narrative or numeric criteria within a State water

quality standard" (i.e., that have Reasonable Potential). The process for determining Reasonable Potential and, when Reasonable Potential is determined, calculating WQBELs is intended to (1) protect the designated beneficial uses of receiving waters specified in the Basin Plan, and (2) achieve applicable water quality objectives (WQOs) and water quality criteria (WQC) that are contained in the CTR, NTR, Basin Plan, and other State plans and policies.

b. NPDES regulations and the SIP provide the basis to establish MDELs.

(1) NPDES Regulations. NPDES regulations at 40 CFR Part 122.45(d) state: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall *unless impracticable* be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works."

(2) SIP. The SIP (Section 1.4) requires that WQBELs be expressed as MDELs and AMELs.

c. MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The WQC and WQOs applicable to receiving waters in the San Francisco Bay Region are from the Basin Plan; the CTR, established by USEPA at 40 CFR 131.38; and the NTR, established by USEPA at 40 CFR 131.36. Some pollutants have WQC/WQOs established by more than one of these three sources.

a. Basin Plan. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in freshwater, lead, mercury, nickel, silver, zinc, and cyanide. The narrative toxicity objective states in part that "[a]ll waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states in part that "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered." Effluent limitations and provisions contained in this Order are designed, based on available information, to implement these objectives.

b. Applicable Beneficial Uses. Beneficial uses applicable to receiving waters of the San Francisco Bay Region, as described by Chapter 2 of the Basin Plan, are presented in Table F-3.

This Order implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN).

Table F-3. Basin Plan Beneficial Uses

Receiving Waters	Beneficial Use(s)
Inland surface waters (marine, fresh, and estuarine) of the San Francisco Bay Region	Agricultural Supply (AGR) Cold Freshwater Habitat (COLD) Warm Freshwater Habitat (WARM) Freshwater Replenishment (FRSH) Ground water Recharge (GWR) Industrial Service Supply (IND) Industrial Process Supply (PRO) Marine Habitat (MAR) Municipal and Domestic Supply (MUN) Navigation (NAV) Water Contact Recreation (REC1) Non-Contact Water Recreation (REC2) Ocean, Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD) Preservation of Rare and Endangered Species (RARE) Fish Migration (MIGR) Fish Spawning (SPWN) Shellfish Harvesting (SHELL) Estuarine Habitat (EST)

c. **CTR.** The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to all inland surface waters and enclosed bays and estuaries of the San Francisco Bay Region. Tables 3-3 and 3-4 of the Basin Plan include numeric objectives for certain of these priority toxic pollutants. These Basin Plan objectives supersede the CTR criteria except in the South Bay south of the Dumbarton Bridge.

d. **NTR.** The NTR establishes numeric aquatic life criteria for selenium, numeric aquatic life and human health criteria for cyanide, and numeric human health criteria for 34 toxic organic pollutants for waters of San Francisco Bay upstream to and including Suisun Bay and the Delta.

e. **Technical Support Document for Water Quality-Based Toxics Controls.** Where numeric objectives have not been established or updated in the Basin Plan, NPDES regulations at 40 CFR Part 122.44 (d) require that WQBELs be established based on USEPA criteria, supplemented where necessary by other relevant information, to attain and maintain narrative WQOs to fully protect designated beneficial uses.

To determine the need for and establish WQBELs, the Regional Water Board has followed the requirements of applicable NPDES regulations, including 40 CFR Parts 122 and 131, as well as guidance and requirements established by the Basin Plan; USEPA's *Technical Support Document for Water Quality-Based Toxics Control* (the TSD, EPA/505/2-90-001, 1991); and the State Water Board's *Policy for Implementation of*

Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (the SIP, 2005).

f. Basin Plan Receiving Water Salinity Policy. The Basin Plan (like the CTR and the NTR) states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable WQC. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one ppt at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria (the latter calculated based on ambient hardness) for each substance.

Receiving waters for discharges covered by this General Permit include inland marine, fresh, and estuarine environments. Applicable water quality criteria for purposes of this General Permit are therefore the more stringent of marine and salt water criteria established by the Basin Plan, NTR, and CTR.

g. Site-Specific Metals Translators.

Because this General Permit has been developed to authorize discharges to many types of receiving waters in the San Francisco Bay Region, site-specific translators are not appropriate in determining the need for and calculating WQBELs for metals. The Regional Water Board has used default translators established by the USEPA in the CTR at 40 CFR 131.38(b)(2), Table 2.

3. Determining the Need for WQBELs

NPDES regulations at 40 CFR 122.44(d)(1)(i) require permits to include WQBELs for all pollutants (including toxicity) for which Reasonable Potential is demonstrated. Thus, assessing whether a pollutant has Reasonable Potential is the fundamental step in determining whether or not a WQBEL is required.

To conduct a "reasonable potential analysis" (RPA) for discharges from water treatment plants in the San Francisco Bay Region, the Regional Water Board used:

- the methods established by the SIP for priority pollutants
- the procedures established by the *Technical Support Document for Water Quality Based Toxics Control* (the TSD, EPA/505/2-90-001, 1991) for non-priority pollutants

When effluent and receiving water data are limited and Reasonable Potential therefore cannot be determined quantitatively, as in this case, both documents require that all available effluent data and all other relevant information be considered. Other relevant information may include limitations from the previous permit, available dilution, type of industry, nature of the discharge, compliance history, and the types and beneficial uses of the receiving waters.

a. Industry Description

Based on data from the USEPA's Safe Drinking Water Information System (SDWIS at http://www.epa.gov/enviro/html/qmr.html), there are approximately 307 community water systems and 551 non-community water systems in the nine county area that makes up much of the Regional Water Board's jurisdiction. A community water system is one that serves the same people on a year round basis. Non-community water systems include non-transient systems that serve the same people year round (e.g., schools) and transient systems that do not consistently serve the same people (e.g., rest stops, campgrounds, gas stations) and are generally very small, serving populations of less than 1,000.

Table F-4: Summary of Community Water Systems

	Number of Community Water Systems [1]					
	Population Served (Thousands)				Primary Water Source [2]	
County	**< 1**	**1 – 5**	**5 – 10**	**> 10**	**SW**	**GW**
Alameda	5	0	0	4	5	4
Contra Costa	16	0	0	2	1	17
Marin	9	5	0	2	8	8
Napa	27	4	0	0	12	19
San Francisco	2	2	0	0	4	0
San Mateo	18	4	2	9	22	11
Santa Clara	46	2	1	5	12	42
Solano	12	0	3	2	6	11
Sonoma	113	7	3	2	9	116
Total	**248**	**24**	**9**	**26**	**79**	**228**

[1] From the U.S. EPA's Safe Drinking Water Information System (SDWIS, July 2007) (http://www.epa.gov/enviro/html/sdwis/sdwis_query.html)
[2] SW = surface water GW = ground water

With some exceptions, Subpart H of USEPA's National Primary Drinking Water Regulations (40 CFR Part 141) requires public water systems using a surface water source or a ground water source under the direct influence of surface water to provide treatment consisting of disinfection and filtration. Systems that rely on ground water sources are not required to provide filtration and will typically provide only disinfection for treatment before supplying water to a distribution system. The significant discharges from the water treatment industry therefore result from treatment of surface water sources or those ground water sources that are under the direct influence of surface water.

Although SDWIS shows that approximately 26 percent of the community water systems in the San Francisco Bay Region rely on a surface water supply or a ground water supply under the influence of surface water, this is a high estimate, as a portion of these systems purchase treated surface water for distribution. Some of these facilities may recycle or land apply process wastewaters or discharge to a POTW, so that the number of water treatment plants actually discharging to waters of the San Francisco Bay Region, and therefore obligated to seek coverage under this General Permit, is much smaller.

b. WQBELs in the Previous Permit

Table F-5 summarizes WQBELs that were established by the previous Order (No. R2-2003-0062).

Table F-5. Previous WQBELs, Order No. R2-2002-0062

Pollutant	Units				
		Inst. Max	Daily Max.	Monthly Avg.	Weekly Avg.
Acute Toxicity	% Survival	Continuous Discharges • 3-sample median of not less than 90 percent survival, and • Single sample maximum of not less than 70 percent survival Intermittent Discharges • Single sample maximum of not less than 70 percent survival			

c. Available Dilution

The extent of impacts of pollutants to receiving waters is related to available dilution. Because this General Permit will authorize discharges from many water treatment plants with varying rates of discharge, and because receiving waters for these discharges will also vary in size and type, this General Permit cannot account for actual dilution that is available to each discharge. This General Permit therefore assumes that no dilution is available for discharges that it authorizes. Dischargers that desire credit for dilution must provide appropriate documentation of dilution to Regional Water Board staff and apply for coverage under an individual discharge permit instead of this General Permit.

d. Nature of Receiving Waters and Beneficial Uses

As previously described, receiving waters for discharges covered by this General Permit include inland marine, fresh, and estuarine environments. Beneficial uses of those receiving waters are broad and include all uses designated for inland waters by Chapter 3 of the Basin Plan. In conducting an RPA, the Regional Water Board therefore assumed that effluent limitations and other requirements of this General Permit must be protective of all types of receiving waters, as well as all actual and potential beneficial uses.

e. Water Quality Criteria

Although many water quality criteria, established by the Basin Plan, the NTR, and the CTR, are applicable to discharges from water treatment plants in the San Francisco Bay Region, the following table presents specific water quality criteria determined by the Regional Water Board to be particularly important in assessing the need for WQBELs in this General Permit. This determination is based on the nature of the water treatment industry and its discharges, including available effluent data.

As shown in Table F-6, where specific numeric criteria have not been established by the Basin Plan, NTR, or CTR for pollutants of concern, such as aluminum, iron, and chloroform, the Regional Water Board has considered USEPA-recommended criteria.

Table F-6. Summary of Applicable Water Quality Criteria

Pollutant	Water Quality Criteria
Toxicity	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. Acute toxicity is defines as a median of less than 90 percent survival, or less than 70 percent survival, 10 percent of the time, of test organisms in a 96-hour static or continuous flow test. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (Basin Plan 3.3.18)
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely effect beneficial uses. Increases in turbidity or decreases in light penetration attributable to waste discharges shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTUs (Basin Plan 3.3.19)
Chloroform	5.7 µg/L and 470 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms, and organisms only (National Recommended Water Quality Criteria for Priority Toxic Pollutants, 2006)
Chlorodibromomethane	0.40 µg/L and 34 µg/L – EPA established criteria for the protection of human health with the consumption of water and organisms, and organisms only (CTR, 2000) 0.40 µg/L and 13 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms, and organisms only (National Recommended Water Quality Criteria for Priority Toxic Pollutants, 2006)
Dichlorobromomethane	0.56 µg/L and 46 µg/L – EPA established criteria for the protection of human health with the consumption of water and organisms, and organisms only (CTR, 2000) 0.55 µg/L and 17 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms, and organisms only (National Recommended Water Quality Criteria for Priority Toxic Pollutants, 2006)
Bromoform	4.3 µg/L and 360 µg/L – EPA established criteria for the protection of human health with the consumption of water and organisms, and organisms only (CTR, 2000) 4.3 µg/L and 140 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms, and organisms only (National Recommended Water Quality Criteria for Priority Toxic Pollutants, 2006)
Total Trihalomethanes (TTHMs)	0.1 mg/L –Basin Plan Table 3-5 lists objectives to protect drinking water sources (MUN)
Arsenic	36 µg/L and 69 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Basin Plan Table 3-3
Cadmium	1.1 µg/L and 3.9 µg/L – chronic and acute criteria for the protection of fresh water aquatic life established by Table 3-4 of the Basin Plan at a receiving water hardness of 100 mg/L

Pollutant	Water Quality Criteria
Chromium (VI)	11 µg/L and 16 µg/L – chronic and acute criteria for the protection of fresh water aquatic life established by the CTR and Table 3-4 of the Basin Plan at a receiving water hardness of 100 mg/L
Copper	6.0 µg/L and 9.4 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Basin Plan Table 3-3, expressed as total recoverable metal
Mercury	0.025 µg/L and 2.1 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Table 3-3 of the Basin Plan
Nickel	8.2 µg/L and 74 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Table 3-3 of the Basin Plan
Lead	3.2 µg/L and 82 µg/L – chronic and acute criteria for the protection of fresh water aquatic life established by the CTR and Table 3-4 of the Basin Plan at a receiving water hardness of 100 mg/L
Selenium	5.0 µg/L and 20 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Table 3-3 of the Basin Plan
Silver	1.9 µg/L – acute criteria for the protection of salt water aquatic life established by the CTR and Table 3-3 of the Basin Plan
Zinc	81 µg/L and 90 µg/L – chronic and acute criteria for the protection of salt water aquatic life established by the CTR and Table 3-3 of the Basin Plan, at a receiving water hardness of 100 µg/L
Iron	300 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms (National Recommended Water Quality Criteria for Non Priority Toxic Pollutants, 2006)
Manganese	50 µg/L and 100 µg/L – EPA-recommended criteria for the protection of human health with the consumption of water and organisms, and organisms only (National Recommended Water Quality Criteria for Non Priority Toxic Pollutants, 2006)
Aluminum	1.0 mg/L – instantaneous maximum criterion from Basin Plan sec. 3.3.22, which incorporates as water quality objectives for surface waters designated as municipal and domestic supplies, the primary drinking water maximum contaminant levels (MCLs) established by the CA Dept. of Health Services at Title 22 CCR 64431 87 µg/L and 750 µg/L – EPA-recommended chronic and acute criteria for the protection of freshwater aquatic life, expressed as total recoverable metal (National Recommended Water Quality Criteria for Non Priority Toxic Pollutants, 2006)

f. Reasonable Potential Determination

Based on a review and consideration of all relevant information, the Regional Water Board has determined that the following pollutants in discharges from surface water treatment plants in the San Francisco Bay Region have a reasonable potential to cause or contribute to excursions above applicable State narrative or numeric water quality criteria.

Trihalomethanes. The common trihalomethanes (THMs) that result from chlorination of certain organics are bromoform, Dichlorobromomethane, chlorodibromomethane, and chloroform. Specific numeric water quality criteria for these pollutants, except chloroform, have been established by the CTR and apply to the inland surface waters of the San Francisco Bay Region. Use of chlorine for disinfection is standard in the water

treatment industry. Studies cited by USEPA in the *Filter Backwash Recycling Rule Technical Guidance Manual* (EPA 816-R-02-014, December 2002) indicate that elevated levels of THMs are possible in discharges from water treatment plants. The Regional Water Board has therefore determined that there is reasonable potential for discharges from surface water treatment plants to cause or contribute to exceedances of the numeric water quality criteria established for THMs in the CTR. The finding of reasonable potential is also supported by the limited effluent monitoring data presented in Table F-2. The data indicate that two of the trihalomethanes (Dichlorobromomethane and chlorodibromomethane) have been measured in discharges within the San Francisco Bay Region at levels that exceed applicable water quality criteria of the CTR. This Order therefore establishes effluent limitations for the three common THMs based on applicable CTR water quality criteria. The Regional Water Board has determined that control of the other three THMs will adequately control levels of chloroform; therefore, an effluent limitation is not established for chloroform. The effluent limitations established by this Order for THMs are presented in the following table. THM effluent limits calculations are shown in Fact Sheet Section IV.C.4.

Table F-7: THM Effluent Limits for Group A Dischargers

THM	Units	Effluent Limitation	
		Monthly Avg	Daily Max
Bromoform	µg/L	4.3	8.6
Dichlorobromomethane	µg/L	0.56	1.1
Chlorodibromomethane	µg/L	0.40	0.80

Group B dischargers are exempt from the THM effluent limits shown above. Based on Resolution No. R2-2008-0101, they qualify for exceptions to these THM limits. This Order contains other requirements for Group B dischargers based on Resolution No. R2-2008-0101. Because Resolution No. R2-2008-0101 did not grant exceptions to Basin Plan Table 3-5 objectives (for MUN), this Order establishes a limit for Total Trihalomethanes (TTHMs) 0.1 mg/L. This limit is not needed for Group A dischargers because the THM effluent limits in Table F-7 are considerably more stringent.

Copper. Available effluent data for copper include 18 data points, all of which show copper concentrations above applicable water quality criteria (chronic and acute criteria for the protection of aquatic life of 6.0 and 9.4 µg/L, respectively) established by the CTR and Basin Plan Table 3-3. Copper concentrations as high as 380 µg/L have been measured in discharges from water treatment plants in the San Francisco Bay Region. Because copper levels commonly exceed applicable water quality criteria, the Regional Water Board has determined that elevated levels of copper in these discharges are possible, and that there is reasonable potential for the discharges to cause or contribute to exceedances of the numeric water quality criteria established for this pollutant in the Basin Plan and the CTR. This Order therefore establishes effluent limitations for copper of an AMEL of 4.7 µg/L and an MDEL of 9.4 µg/L for salt, brackish and estuarine receiving waters, and fresh receiving waters of less than 150 mg/L hardness as calcium carbonate. Effluent limits of an AMEL of 9.8 µg/L and an MDEL of 20 µg/L are established for fresh receiving waters of 150 mg/L hardness as calcium carbonate and above in order to avoid setting limits that are unnecessarily stringent, and to account for

the high hardness observed in some fresh receiving waters. Copper effluent limits calculations are shown in Fact Sheet Section IV.C.4.

Group B dischargers are exempt from the copper effluent limits shown above. Based on Resolution No. R2-2008-0101, they qualify for exceptions to these copper limits.

Zinc. Based on the common use of zinc as a primer or coating on water distribution piping and in galvanized steel pipe, the Regional Water Board has determined that there is reasonable potential for zinc to cause or contribute to an exceedance of water quality standards in the Basin Plan and CTR. This Order therefore establishes effluent limitations of an AMEL of 45 μg/L and an MDEL of 90 μg/L for zinc based on the CTR and Table 3-3 of the Basin Plan. These limits apply to both Group A and B dischargers.

4. WQBEL Calculations.

The following table shows the WQBEL calculations for copper, zinc, and the THMs. These calculations are based on SIP Section 1.4.

Table F-10. Effluent Limit Calculations

PRIORITY POLLUTANTS	Copper		Zinc	Chlorodibromomethane	Dichlorobromomethane	Bromoform
Units	ug/L		ug/L	ug/L	ug/L	ug/L
Basis and Criteria type	CTR & BP SW Aq Lf	CTR & BP FW Aq Lf, Hardness 150 mg/L or greater	CTR & BP SW Aq Lf	CTR HH	CTR HH	CTR HH
CTR Criteria -Acute	9.4	20	90			
CTR Criteria -Chronic	6.0	13	81			
SSO Criteria -Acute (December 2004) (Diss.)						
SSO Criteria -Chronic (December 2004) (Diss.)						
Water Effects ratio (WER)		1	1			
Lowest WQO	6.0	13	81	0.40	0.56	4.3
Site Specific Translator - MDEL						
Site Specific Translator - AMEL						
Dilution Factor (D) (if applicable)	0	0	0	0	0	0
No. of samples per month	4	4	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	Y	Y	y	N	N	N
HH criteria analysis required? (Y/N)	N	N	n	Y	Y	Y
Applicable Acute WQO	9.4	20	90	0.0	0.0	0.0
Applicable Chronic WQO	6.0	13	81	0.0	0.0	0.0
HH criteria	-----	-----		0.40	0.56	4.3
Background (Maximum Conc for Aquatic Life calc)	0.0	0.0	0.0	0.0	0.0	0.0
Background (Average Conc for Human Health calc)	-----	-----				
Is the pollutant Bioaccumulative(Y/N)? (e.g., Hg)	N	N	N	N	N	N
ECA acute	9.4	20	90			
ECA chronic	6.0	13	81			
ECA HH				0.40	0.56	4.3
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	Y	Y	Y	Y	Y	Y
Avg of effluent data points						
Std Dev of effluent data points						
CV calculated	N/A	N/A	N/A	N/A	N/A	N/A
CV (Selected) - Final	0.6	0.60	0.6	0.6	0.6	0.6
ECA acute mult99	0.32	0.32	0.32			
ECA chronic mult99	0.53	0.53	0.53			
LTA acute	3.0	6.3	29			
LTA chronic	3	7	43			
minimum of LTAs	3.0	6.3	29			
AMEL mult95	1.6	1.6	1.6	1.6	1.6	1.6
MDEL mult99	3.1	3.1	3.1	3.1	3.1	3.1
AMEL (aq life)	4.7	10	45			
MDEL(aq life)	9.4	20	90			
MDEL/AMEL Multiplier	2.0	2.01	2.0	2.0	2.0	2.0
AMEL (human hlth)				0.40	0.56	4.3
MDEL (human hlth)				0.80	1.1	8.6
minimum of AMEL for Aq. life vs HH	4.7	9.8	45	0.40	0.6	4.3
minimum of MDEL for Aq. Life vs HH	9.4	20	90	0.80	1.1	8.6
Current limit in permit (30-day average)		-----				
Current limit in permit (daily)	-----	-----		-----		
Final limit - AMEL	4.7	9.8	45	0.40	0.56	4.3
Final limit - MDEL	9.4	20	90	0.80	1.1	8.6

5. Whole effluent acute toxicity.

This Order retains effluent limits for all surface water treatment facilities producing potable water for whole effluent acute toxicity from the previous Order. The acute toxicity effluent limits are based on the Basin Plan Table 4-4 for intermittent discharges. Historical monitoring data indicate compliance with these effluent limits.

D. Antidegradation and Antibacksliding Analysis

All effluent limits established by this Order are at least as stringent as those established by Order R2-2003-0062, or are newly established by this Order. Therefore, the effluent limits established by this Order meet applicable antibacksliding requirements of the CWA.

This Order also complies with Antidegradation requirements. The discharge concentrations of pollutants of concern from surface water treatment facilities producing potable water are unlikely to change because the Dischargers propose no substantial changes to their treatment processes. In addition, the Dischargers are required to meet BMP requirements of this Order that reduce or eliminate the potential for discharges that would degrade water quality. Therefore, the quality of the receiving waters will not be lowered.

E. Storm Water Limitations

The discharge of storm water not commingled with wastewater is covered under the State general storm water permit associated with industrial activities.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

These limitations are in the previous permit and are based on the narrative and numeric objectives contained in Chapter 3 of the Basin Plan.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The principal purposes of a monitoring program by a discharger are to:

1. Document compliance with waste discharge requirements and prohibitions established by the Regional Water Board,

2. Facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge,

3. Develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and
4. Prepare water and wastewater quality inventories.

40 CFR 122.48 requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The MRP (**Attachment E**) establishes monitoring and reporting requirements to

implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

The MRP is a standard requirement in almost all NPDES permits issued by the Regional Water Board, including this Order. It contains definitions of terms, specifies general sampling and analytical protocols, and sets out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the CWC, and the Regional Water Board's policies. The MRP also contains a sampling program specific for discharges under this Order. It defines the sampling stations and frequency, the pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all parameters for which effluent limitations are specified. Monitoring for additional constituents, for which no effluent limitations are established, is also required to provide data for future completion of reasonable potential analysis.

A. Influent Monitoring

Routine monitoring for influent is not established by this Order. The Discharger may monitor influent on its own initiative. The Executive Officer may also require the Discharger to sample influent on a case-by-case basis.

B. Effluent Monitoring

The MRP retains most effluent monitoring requirements from the previous permit. However, the monitoring frequency for pollutants with new effluent limits in this Order has been increased. The monitoring frequency for chloroform, bromoform, dichlorobromomethane, chlorodibromomethane, and zinc has been increased to quarterly for routine discharges. The monitoring frequency for copper has been increased to monthly for routine discharges.

C. Receiving Water Monitoring

The MRP retains all receiving water monitoring requirements from the previous Order. TSS, pH, turbidity, and copper monitoring is required to demonstrate compliance with Basin Plan receiving water objectives. Hardness and salinity monitoring is required to collect hardness data to calculate most stringent criteria for the next permit reissuance. Monitoring for metals, including zinc, and the four THMs is required to collect data to calculate most stringent criteria, establish ambient background conditions and calculate reasonable potential for the next permit reissuance.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which, in accordance with 40 CFR 122.41 - 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in **Attachment D** of this Order.

B. Monitoring and Reporting Requirements

The Discharger will need to monitor the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are contained in the MRP (**Attachment E**) and in the Standard Provisions of the Permit (**Attachment G**). This provision requires compliance

with these documents and is based on 40 CFR 122.63. The Standard Provisions are standard requirements in almost all NPDES permits issued by the Regional Water Board, including this Order. They contain definitions of terms, specify general sampling and analytical protocols, and set out requirements for reporting spills, violations, and routine monitoring data in accordance with NPDES regulations, the CWC, and the Regional Water Board's policies. The MRP contains a sampling program for all facilities covered by this Order. It defines the sampling stations and frequency, the pollutants to be monitored, and additional reporting requirements.

C. Special Provisions

1. **Basis for Permit Reopener provision.** Provision VI.C.1 is based on 40 CFR 123 and allows future modification of this Order and its effluent limitations as necessary in response to updated WQOs that may be established in the future.

2. **Basis for Notice of Intent Application.** Provision VI.C.2, NOI Application, is based on 40 CFR 122.28(b).

3. **Basis for NOI Review.** Provision VI.C.3, NOI Review, is based on 40 CFR 122.28(b).

4. **Notice of General Permit Coverage—Discharge Authorization.** Provision VI.C.4, Discharge Authorization, is based on 40 CFR 122.28(b).

5. **Notice of Non-Applicability:** Provision VI.C.5, Notice of Non-Applicability, is based on 40 CFR 122.28(b).

6. **Basis for Discharge Termination.** Provision VI.C.6, Discharge Termination, is based on 40 CFR 122.28(b).

7. **Basis for Non-Compliance as a Violation.** Provision VI.C.7, Non-Compliance as a Violation, is based on 40 CFR 122.41(a).

8. **Basis for Individual NPDES Permit may be Required.** Provision VI.C.8, Individual NPDES Permit may be Required, is based on 40 CFR 122.28(b)(3).

9. **Basis for Construction, Operation, and Maintenance Specifications.** Provision VI.C.9, which requires dischargers to submit or update annually an Operations and Maintenance manual for backwash water settling basins or relevant sections thereof, is based on BPJ. This provision is to ensure that dischargers employ the best practicable control technology economically achievable to reduce and eliminate discharges of pollutants subject to technology-based limits from backwash water settling basins. Pollutants subject to technology-based limits that may be discharged from backwash water settling basins are TSS and settleable matter. This Order specifies additional requirements specifically for Group B dischargers to fulfill conditions set forth in Resolution No. R2-2008-0101 (residual waste disposal plans).

10. Basis for Special Studies and Additional Monitoring Requirements

a. **Best Management Practices Plan.** Provision VI.C.10.b requires all Dischargers seeking coverage under this General Permit to develop, update annually, and implement a BMPs plan for their industrial activity. The purpose of the BMPs plan is to control and abate the discharge of pollutants from the facility to surface waters and to achieve compliance with BAT or BCT requirements and with applicable water quality standards. This General Permit requires Dischargers to develop and implement BMPs that will reduce and eliminate the discharge of pollutants subject to technology-based effluent limits to State waters. Pollutants subject to technology-based limits include total chlorine residual, the major pollutant associated with water treatment facility operation and management. This Order requires Dischargers to address on-site chlorine management and dechlorination in its BMPs plan.

The minimum contents of site-specific BMPs plan are specified in the instructions for the Notice of Intent. BMPs measures are typically "good housekeeping" requirements and do not require additional construction, or operation and maintenance of additional treatment equipment or processes. It is practically feasible and economically achievable to implement BMPs. This provision is unchanged from the previous Order.

This Order specifies additional requirements specifically for Group B dischargers to fulfill conditions set forth in Resolution No. R2-2008-0101 (alternate water supplies).

b. **Facility Modification/Maintenance.** Provision VI.C.10.c requires each Discharger to inform the Regional Water Board of modifications to its facility that will affect effluent quality. The provision also requires the Discharger to inform the Regional Water Board if the outfall is relocated or eliminated so that the Regional Water Board can make any necessary modification to its permit coverage. This Provision is based on 40 CFR 2.41(I)(1).

11. Additional Requirements for Group B Dischargers (Requirements Based on SIP Exception)

The SIP provides for categorical exceptions that Regional Water Boards may grant for short-term or seasonal discharges of drinking water, stating:

> *The [Regional Water Board] may, after compliance with the California Environmental Quality Act (CEQA), allow short-term or seasonal exceptions from meeting priority pollutant criteria/objectives if determined necessary to implement control measures … regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Such categorical exceptions may also be granted for draining water supply reservoirs, canals, and pipelines for maintenance, for draining municipal storm water conveyances for cleaning and maintenance, or for draining water treatment facilities for cleaning or maintenance.*

The Regional Water Board adopted Resolution No. R2-2008-0101 in accordance with CEQA indicating that it will grant categorical exceptions for specific drinking water discharges on a

permit-by-permit basis. This Order grants this exception for copper and specific trihalomethane objectives in accordance with the SIP and Resolution No. R2-2008-0101. As discussed below, this Order meets the conditions set forth in the SIP and Resolution No. R2-2008-0101 for granting such an exception:

a. **Notification Requirements.** The public notice for this Order serves as notification to potentially affected public and governmental agencies.

b. **Description of Proposed Action.** Notices of Intent filed pursuant to this Order provide detailed descriptions of reasonably foreseeable discharges. Section II of this Fact Sheet describes these discharges generally.

c. **Time Schedule.** Notices of Intent filed pursuant to this Order provide descriptions, including frequencies, of reasonably foreseeable discharges. Section II of this Fact Sheet provides additional information.

d. **Discharge and Receiving Water Quality Monitoring Plan.** The Monitoring and Reporting Program (Attachment E) of this Order fulfills this requirement.

e. **Contingency Plan.** Provision VI.C.10.a(3) requires a contingency plan to fulfill this requirement.

f. **Alternate Water Supply.** Provision VI.10.a(3) requires the contingency plan to identify an alternate water supply (if needed) to fulfill this requirement.

g. **Residual Waste Disposal Plan.** Provision VI.9 requires the Discharger to submit a plan for disposal of residual waste and fulfills this requirement.

h. **Certification by Qualified Biologist.** Provision VI.10.d requires the Discharger to provide certification by a qualified biologist that beneficial uses of receiving waters either (1) have not been impacted by discharges of potable water or (2) have been restored to previous conditions following discharges of potable water.

To comply with CEQA mitigation requirements, Resolution No. R2-2008-0101 also requires Group B dischargers to prepare and implement pollution minimization plans, as described in Provision VI.10.d. In accordance with Resolution No. R2-2008-0101, the Executive Officer may exempt any Group B discharger from the pollution minimization requirements if the Discharger can, for each discharge to be exempted, demonstrate that the discharge (a) contains copper concentrations above water quality criteria no more frequently than once every three years on average or (b) flows back into the same water body where the water originated.

VIII. PUBLIC PARTICIPATION

The Regional Water Board is considering the issuance of WDRs that will serve as a NPDES General Permit for surface water treatment facilities producing potable water. As a step in the WDR adoption process, the Regional Water Board has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for these discharges and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through The Recorder on January 16, 2009**.**

B. Written Comments

Staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Officer at the Regional Water Board at the address above on the cover page of this Order, Attention John Madigan.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on February 13, 2009**.**

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	**April 8, 2009**
Time:	9:00 a.m.
Location:	Elihu Harris State Office Building 1515 Clay Street Oakland, CA 1st floor Auditorium
Contact:	John Madigan, Phone: (510) 622-2405; email: JMadigan@waterboards.ca.gov.

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharges, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is www.waterboards.ca.gov/sanfranciscobay where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (510) 622-2300.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to John Madigan, Phone: (510) 622-2405; email: JMadigan@waterboards.ca.gov.

ATTACHMENT H - CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

NOTICE OF NON-APPLICABILITY to inform the Regional Water Board that the region wide General National Pollutant Discharge Elimination System (NPDES) Permit for surface water treatment facilities is not applicable to the facility identified on this form.

General Permit No. CAG382001
Order No. R2-2009-0033

I. OWNER/OPERATOR INFORMATION (If the agency has more than three facilities that need to be listed, provide the information in an attached sheet)

A. Agency Information

Agency Name		Agency Type (Check One) 1.☐ Public Agency 2.☐ Private 3.☐ Other, specify the type:	
Agency Address			
City	State	Zip Code	Agency Phone No.
Contact Person's Name & Title	Contact Person's Email	Contact Person's Phone No.	

B. Facility Information

1. Facility Name		Operator Type (Check One) 1.☐ Public Agency 2.☐ Private 3.☐ Other, specify the type:	
Facility Location		Facility Phone No.	
City	State	Zip Code	
Contact Person's Name & Title	Contact Person's Email	Contact Person's Phone No.	

2. Facility Name		Operator Type (Check One) 1.☐ Public Agency 2.☐ Private 3.☐ Other, specify the type:	
Facility Location		Facility Phone No.	
City	State	Zip Code	
Contact Person's Name & Title	Contact Person's Email	Contact Person's Phone No.	

3. Facility Name		Operator Type (Check One) 1.☐ Public Agency 2.☐ Private 3.☐ Other, specify the type:
Facility Location		Facility Phone No.
City	State	Zip Code
Contact Person's Name & Title	Contact Person's Email	Contact Person's Phone No.

☐ Additional owner information attached

II. BASIS OF NON-APPLICABILITY The facility operator identified in item I is not required to comply with the above General Permit for the following reason:

1. Facility Name _____

☐ 1. This facility is not a surface water treatment facility as described in the General Permit Findings.
☐ 2. There is no discharge from this facility to any of the State water. (Please be noted that any future discharge from this facility to State water will be considered as discharge without a permit and it is violation of Water Code Section 13260 through 13264)
☐ 3. All discharges from this facility are regulated by an individual NPDES permit.
Individual NPDES Permit No._____
☐ 4. Other reasons for non-applicability, please explain below:

2. Facility Name _____

☐ 1. This facility is not a surface water treatment facility as described in the General Permit Findings.
☐ 2. There is no discharge from this facility to any of the State water. (Please be noted that any future discharge from this facility to State water will be considered as discharge without a permit and it is violation of Water Code)
☐ 3. All discharges from this facility are regulated by an individual NPDES permit.
Individual NPDES Permit No._____
☐ 4. Other reasons for non-applicability, please explain below:

3. Facility Name _____

☐ 1. This facility is not a surface water treatment facility as described in the General Permit Findings.
☐ 2. There is no discharge from this facility to any of the State water. (Please be noted that any future discharge from this facility to State water will be considered as discharge without a permit and it is violation of Water Code)
☐ 3. All discharges from this facility are regulated by an individual NPDES permit.
Individual NPDES Permit No._____
☐ 4. Other reasons for non-applicability, please explain below:

III. CERTIFICATION

" I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the criteria for eligibility and the development and implementation of Pollution Prevention Practices, if required, will be complied with."

Signature[1] _____ Date: _____

Printed Name & Title: _____

Note 1. Please refer to NOI instructions, item X for signature requirement.